



## Calhoun: The NPS Institutional Archive DSpace Repository

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

2010-12

# You have been friended by the U.S. military : using social networking services for IO messaging

Rouse, Harold D.

Monterey, California. Naval Postgraduate School

---

<http://hdl.handle.net/10945/5006>

---

This publication is a work of the U.S. Government as defined in Title 17, United States Code, Section 101. Copyright protection is not available for this work in the United States.

*Downloaded from NPS Archive: Calhoun*



<http://www.nps.edu/library>

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community.

Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School  
411 Dyer Road / 1 University Circle  
Monterey, California USA 93943**



# NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

## THESIS

**YOU HAVE BEEN FRIENDED BY THE U.S. MILITARY:  
USING SOCIAL NETWORKING SERVICES FOR IO  
MESSAGING**

by

Gabriel R. Downey II  
David A. Hollis  
Harold D. Rouse

December 2010

Thesis Advisor:  
Second Reader:

Dorothy E. Denning  
Heather S. Gregg

**Approved for public release; distribution is unlimited**

THIS PAGE INTENTIONALLY LEFT BLANK

**REPORT DOCUMENTATION PAGE**
*Form Approved OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

<b>1. AGENCY USE ONLY (Leave blank)</b>	<b>2. REPORT DATE</b> December 2010	<b>3. REPORT TYPE AND DATES COVERED</b> Master's Thesis
<b>4. TITLE AND SUBTITLE</b> You have been Friended by the U.S. Military; Using Social Networking Services for IO Messaging		<b>5. FUNDING NUMBERS</b>
<b>6. AUTHOR(S)</b> Gabriel R. Downey II, David A. Hollis, Harold D. Rouse		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000		<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A		
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number _____ N/A _____.		
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited		<b>12b. DISTRIBUTION CODE</b>
<b>13. ABSTRACT (maximum 200 words)</b> Social Networking Services (SNS) have achieved a salience in today's society. Facebook has over 500 million active users worldwide. SNS has been used by companies to advertise and communicate with their customers. Politicians and government officials have created Facebook and Twitter accounts to keep in touch with constituents. They use these tools for campaigns, to gather feedback, and for strategic communications. The perceived effect of these tools to influence populations has prompted countries such as Iran and China to enact policies to limit access to these websites. The Department of Defense (DoD) is using some of these tools for public affairs and strategic communications, but the use of these tools for the purpose of planned influence operations has not been exploited. Currently, SNS are used extensively in the private business and political sector. Studying the private sector's use of SNS could yield some insights for the DoD and influence campaigns. The purpose of this study is to determine if U.S. Information Operations (IO) professionals should develop Tactics, Techniques, and Procedures (TTPs) for the use of SNS in order to conduct IO. This work will research the successful use of SNS by marketing and political campaign professionals in order to identify the best uses of SNS for the IO community within the DoD.		
<b>14. SUBJECT TERMS</b> Information Operations, Social Networking Services, Facebook, Twitter, Marketing, Political Campaign, Umar Abd al-Hakim, Anwar Al-Awaki, milBlog, milWiki, milBook, Blog, Microblog, Internet Forum, Message Board, Bebo, LinkedIn, YouTube, and Flickr		<b>15. NUMBER OF PAGES</b> 85
		<b>16. PRICE CODE</b>
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified
		<b>20. LIMITATION OF ABSTRACT</b> UU

NSN 7540-01-280-5500

 Standard Form 298 (Rev. 2-89)  
 Prescribed by ANSI Std. Z39-18

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release; distribution is unlimited**

**YOU HAVE BEEN FRIENDED BY THE U.S. MILITARY: USING SOCIAL  
NETWORKING SERVICES FOR IO MESSAGING**

Gabriel R. Downey II  
Major, United States Army  
B.A., University of Alabama, 1998

David A. Hollis  
Major, United States Army  
B.S., Appalachian State University, 1995

Harold D. Rouse  
Captain, United States Army  
B.S., University of Maryland University College, 2004

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF SCIENCE IN INFORMATION OPERATIONS**

from the

**NAVAL POSTGRADUATE SCHOOL**

Author: Gabriel R. Downey II  
David A. Hollis  
Harold D. Rouse

Approved by: Dr. Dorothy E. Denning  
Thesis Advisor

Dr. Heather S. Gregg  
Second Reader

Dr. Gordon H. McCormick  
Chairman, Department of Defense Analysis

THIS PAGE INTENTIONALLY LEFT BLANK

## ABSTRACT

Social Networking Services (SNS) have achieved a salience in today's society. Facebook has over 500 million active users worldwide. SNS have been used by companies to advertise and communicate with their customers. Politicians and government officials have created Facebook and Twitter accounts to keep in touch with constituents. They use these tools for campaigns, to gather feedback, and for strategic communications. The perceived effect of these tools to influence populations has prompted countries such as Iran and China to enact policies to limit access to these websites. The Department of Defense (DoD) is using some of these tools for public affairs and strategic communications, but the use of these tools for the purpose of planned influence operations has not been exploited. Currently, SNS are used extensively in the private business and political sector. Studying the private sector's use of SNS could yield some insights for the DoD and influence campaigns. The purpose of this study is to determine if U.S. Information Operations (IO) professionals should develop Tactics, Techniques, and Procedures (TTPs) for the use of SNS in order to conduct IO. This work will research the successful use of SNS by marketing and political campaign professionals in order to identify the best uses of SNS for the IO community within the DoD.

THIS PAGE INTENTIONALLY LEFT BLANK

## TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	STATEMENT OF PURPOSE AND SCOPE .....	1
B.	DESCRIPTION OF METHODOLOGY .....	1
C.	SUMMARY OF KEY FINDINGS .....	2
D.	OUTLINE OF THESIS .....	4
II.	SOCIAL NETWORKING SERVICES .....	5
A.	DEFINING SOCIAL NETWORKING SERVICES .....	5
B.	CURRENT DOD USES OF SNS .....	7
1.	DoD and SNS .....	7
2.	Senior Military Leaders and SNS.....	8
C.	U.S. ADVERSARIES' USE OF SNS.....	9
1.	Umar Abd al-Hakim.....	9
2.	Digital Hate and Terrorism Project.....	10
3.	Anwar Al-Awaki .....	11
D.	DETERMINING THE IMPORTANCE OF SNS.....	12
1.	Media Usage .....	12
2.	Internet and SNS Growth .....	13
E.	BENEFITS OF SNS .....	18
1.	Interactivity .....	18
2.	Speed, Scope, and Scale .....	19
3.	Gaining Trust .....	20
F.	MEASURING SNS SUCCESS .....	21
III.	MARKETING ON SOCIAL NETWORKING SERVICES.....	23
A.	TRADITIONAL DEFINITIONS OF MARKETING .....	23
B.	BEST PRACTICES FOR CONTENT MARKETING ON SNS .....	24
1.	Determine the Information Needs of the Audience .....	25
2.	Be Transparent With Intentions and Identity .....	26
3.	You Do Not Control the Message .....	27
4.	Be Interactive: Listening and Participation .....	28
C.	MEASURE SOCIAL ACTIVITY FOR SUCCESS.....	29
D.	THE FUTURE OF MARKETING ON SNS .....	31
IV.	POLITICAL CAMPAIGNING ON SOCIAL NETWORKING SERVICES .....	33
A.	TRADITIONAL METHODS AND DEFINITIONS OF POLITICAL CAMPAIGNING.....	33
B.	BEST PRACTICES FOR POLITICAL CAMPAIGNING ON SNS .....	34
1.	Give and Take: Do Not Create an Online “Lawn Sign” .....	34
2.	Get People Talking: Facilitate Interactive Communication .....	38
3.	Harness the Power of Volunteers: Cause People to Commit Themselves to Your Cause .....	40
4.	Get Involved and Participate .....	42
C.	MEASURING THE CAMPAIGNS SUCCESS ON SNS .....	44

<b>V. CONCLUSION .....</b>	<b>45</b>
A. REVISITING THE OBJECTIVE .....	45
B. RECOMMENDATIONS.....	45
1. Best Practices from Marketing .....	46
2. Best Practices from Political Campaigns .....	48
3. Measures of Effectiveness.....	50
C. SUGGESTIONS FOR FUTURE RESEARCH.....	51
<b>APPENDIX A. INTERNET GROWTH STATISTICS.....</b>	<b>53</b>
<b>APPENDIX B. FACEBOOK GROWTH RATE STATISTICS.....</b>	<b>57</b>
<b>LIST OF REFERENCES .....</b>	<b>61</b>
<b>INITIAL DISTRIBUTION LIST .....</b>	<b>67</b>

## LIST OF FIGURES

Figure 1.	Hierarchical Sequence of Effects .....	14
Figure 2.	Results for Colombia .....	15
Figure 3.	Results for Iraq.....	16
Figure 4.	Results for Venezuela .....	17
Figure 5.	Combined Internet & SNS Growth Over Time .....	18

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF TABLES

Table 1.	Online Activities of Candidate Supporters .....	41
Table 2.	Worldwide Internet User Statistics .....	53
Table 3.	Internet User Statistics for Colombia.....	54
Table 4.	Internet User Statistics for Iraq.....	54
Table 5.	Internet User Statistics for Venezuela.....	55
Table 6.	Worldwide Facebook User Statistics .....	57
Table 7.	Facebook User Statistics for Colombia.....	58
Table 8.	Facebook User Statistics for Iraq .....	58
Table 9.	Facebook User Statistics for Venezuela .....	59

THIS PAGE INTENTIONALLY LEFT BLANK

## **LIST OF ACRONYMS AND ABBREVIATIONS**

ACS	Australian Candidate Survey
ADL	Anti-Defamation League
AKO	Army Knowledge Online
ALP	Australian Labor Party
AMA	American Marketing Association
BMW	Bavarian Motor Works
CAC	Common Access Card
CEO	Chief Executive Officer
DA	Department of the Army
DKO	Defense Knowledge Online
DoD	Department of Defense
DSPD	Defense Support to Public Diplomacy
DTM	Directive Type Memorandum
Four P's	Product, Price, Place, and Promotion
IO	Information Operations
MILDEC	Military Deception
MISO	Military Information Support Operations
MOE	Measures of Effectiveness
MOP	Measures of Performance
NEFA	Nine Eleven Finding Answers
OPSEC	Operations Security
PA	Public Affairs
PEO C3T	Program Executive Office Command Control and Communications-Tactical
PSP	Play Station Portable “Sony”
ROMI	Return on Marketing Investment
SNS	Social Networking Services
TTP	Tactics, Techniques and Procedures
U.S.	United States

THIS PAGE INTENTIONALLY LEFT BLANK

## **ACKNOWLEDGMENTS**

Completing this thesis could not have been possible without the understanding and support of our wives, families, and friends who have provided constant encouragement throughout this process. The hours spent away from home are a testament to the sacrifices not made by us in the pursuit of this project, but to the patience and grace of our families who always supported us so we could balance the rigors of work, school, and family. Additional thanks goes to fellow students, faculty and, thesis advisors who were also enormously instrumental in the formulation of the ideas of this thesis. Without their support and insight this would not have been possible.

THIS PAGE INTENTIONALLY LEFT BLANK

## I. INTRODUCTION

### A. STATEMENT OF PURPOSE AND SCOPE

Can the use of accepted Social Networking Services (SNS) (Facebook, Twitter, YouTube, etc.) as marketing and political campaigning tools have applications for the development of the DoD Information Operations (MISO<sup>1</sup>, MILDEC<sup>2</sup>, PA<sup>3</sup>, DSPD<sup>4</sup>)? The purpose of this study is to determine if U.S. Information Operations (IO) professionals should develop Tactics, Techniques and Procedures (TTPs) for the use of SNS in order to conduct IO. This work will research the successful use of SNS by marketing and political campaign professionals in order to identify the best uses of SNS for the IO community within the DoD.

### B. DESCRIPTION OF METHODOLOGY

This thesis will follow four methodological steps. We will begin by defining Social Networking Services (SNS) and analyzing how the DoD and [U.S.] adversaries are currently using these technologies and services. Next, we will use a statistical mathematical model to show the potential explosive growth of SNS. Then, we will review successful marketing practices using SNS. Finally, we will review political campaign practices using SNS and describe emerging best practices.

---

<sup>1</sup> Military Information Support Operations (MISO) formerly (PSYOP) are planned operations to convey selected truthful information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of their governments, organizations, groups, and individuals.

<sup>2</sup> Military Deception (MILDEC) is a core capability defined as those actions executed to deliberately mislead adversary decision makers as to friendly military capabilities, intentions, and operations, thereby causing the adversary to take specific actions (or inactions) that will contribute to the accomplishment of the friendly forces' mission.

<sup>3</sup> Public Affairs (PA) are those public information, command information, and community relations activities directed toward both external and internal audiences with interest in DoD. PA's principal focus is to inform domestic and international audiences of joint operations to support combatant command public information needs.

<sup>4</sup> Defense Support to Public Diplomacy (DSPD) designed to promote U.S. foreign policy objectives by seeking to understand, inform, and influence foreign audiences and opinion makers and by broadening the dialogue between American citizens and institutions and their counterparts abroad.

## C. SUMMARY OF KEY FINDINGS

Facebook has been growing exponentially, and most of that growth is happening outside the United States.<sup>5</sup> While older media, such as traditional print and broadcast media, still have relevance in mass communication, SNS offers better speed, scope, and scale of interactivity.<sup>6</sup> The advantage that SNS provides is one can reach hundreds, thousands, or even millions of people in multiple locations almost instantaneously. The SNS best practices from marketing and political campaigning can be adapted to improve the effectiveness of IO messaging. The following summarizes the best practices presented in Chapter III and IV of this thesis:

- **Determine the information needs of the audience:** By understanding what the social community is interested in, you can develop the appropriate messages. Discovering the common interests of the audience and monitoring the interests as they evolve is critical to successful IO SNS messaging.
- **Be transparent with intentions and identity:** Failure to be transparent and open about intent for its online social presence will likely alienate audiences.<sup>7</sup>
- **You do not control the message:** Encouraging comments and discussion can lead to opportunities for increased contribution, co-creation, and feedback. This feedback is yet another measure of effectiveness on which to measure the SNS influencing campaign.
- **Be interactive: listen and participate:** Listening to SNS conversations provides a means of measuring effectiveness of messages and identifying potential future content analysis.<sup>8</sup> Failure to listen and participate in conversations will result in less effective messaging.
- **Give and take: do not create an online “lawn sign”:** People do not go to SNS to read the same information they can get from other sources. By understanding what the social community is interested in you can better develop messages to meet their information requirements.

---

<sup>5</sup> Justin Smith, "Inside Facebook Tracking Facebook and the Facebook Platform for Developers and Marketers." July 2, 2009. <http://www.insidefacebook.com/2009/07/02/facebook-now-growing-by-over-700000-users-a-day-updated-engagement-stats/> (accessed October 27, 2010).

<sup>6</sup> Paul A. Pavlou and David W. Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: a Research Agenda," *Journal of Interactive Advertising*, 1. 1 (2000), <http://jiad.org/article6>. (accessed October 28, 2010).

<sup>7</sup> Lee Odden, "Best and Worst Practices Social Media Marketing," TopRank Online Marketing. (February 12, 2009): <http://www.toprankblog.com/2009/02/best-worst-practices-social-media-marketing/> (accessed October 28, 2010).

<sup>8</sup> Ibid.

- **Get people talking: facilitate interactive communication:** SNS users desire to share information and interact with others. Messaging that does not harness the interactive communications capabilities of SNS will drive followers to other sites.
- **Harness the power of volunteers (users):** Cause people to commit themselves to your cause. Encouraging and directing the online activities leads to increased commitment to your cause, opportunities for recruiting additional followers, spreading your message, and gaining valuable insight from the population.
- **Get involved and participate:** Be active on as many sites as possible, in order to reach as many people as possible. Redeliver a message in a fresh and new way.

Utilizing these best practices and capitalizing on the speed, scope, and scale of SNS, could potentially provide the DoD with an ideal platform for influence operations. SNS also has the added benefit of potentially providing Measures of Performance (MOP) and Measures of Effectiveness (MOE) through statistical data and feedback about the target audiences. The ability to interact and gather MOPs and MOEs with SNS can save a lot of time, effort, and money spent on targeting the wrong target audience and/or targeting the right target audience the wrong way.

As we will discuss in the following chapters, Internet and SNS users are growing exponentially. As a result, many countries around the world, within only a few years, could have more people on-line and using SNS than not. Additionally, legitimate businesses, organizations, and individuals around the world have turned to SNS to influence people, change behavior, and create action. SNS has been used by companies to market to and communicate with their customers. Politicians and government officials have created Facebook and Twitter accounts to campaign and communicate with constituents.<sup>9</sup> Marketers and politicians have seen the potential of SNS and developed methods to successfully communicate with populations in order to influence their purchases or gain their votes. The lessons learned and techniques developed in each of these fields can guide the DoD as it develops doctrine for influencing foreign populations through the use of SNS.

---

<sup>9</sup> Christine B. Williams and Girish J. Gulati, “Social Networks in Political Campaigns: Facebook and the 2006 Midterm Elections.” Chicago, IL: American Political Science Association, 2.

#### **D. OUTLINE OF THESIS**

Chapter II first defines Social Networking Services (SNS) terms as they relate to our research. Next, it looks at how and to what extent the DoD and our adversaries are currently using these technologies and services. Then, it shows the potential benefits of SNS and how it can potentially enhance DoD influence operations. Chapter III reviews traditional marketing practices and describes the emerging best practices for marketing through SNS as identified by marketing researchers and professionals. Chapter IV discusses traditional methods for conducting a campaign and then describes effective campaign practices and techniques that politicians from around the world have used on SNS to gain support and votes. Chapter V discusses how the SNS best practices identified in Chapters III and IV apply to IO messaging within the DoD.

## II. SOCIAL NETWORKING SERVICES

On February 25, 2010, the DoD established a policy for “...responsible and effective use of Internet-based capabilities, including social networking services (SNS)<sup>10</sup>.” In this memorandum, the DoD defines Internet-based capabilities as

...all publicly accessible information capabilities and applications available across the Internet in locations not owned, operated, or controlled by the Department of Defense or the Federal Government. Internet based capabilities include collaborative tools such as SNS, social media, user-generated content, social software, e-mail, instant messaging, and discussion forums (e.g., YouTube, Facebook, MySpace, Twitter, Google Apps).<sup>11</sup>

In this chapter, we will first define Social Networking Services (SNS) terms as they relate to our research. Then, we will look at how and to what extent the DoD is currently using these technologies and services. Next, we will look at how our [U.S.] adversaries’ are potentially exploiting the use of SNS to their advantage. Finally, we will show the potential usefulness of SNS by using a statistical mathematical model and by highlighting the benefits of SNS in order to emphasize why its use can potentially enhance the DoD influencing capabilities.

### A. DEFINING SOCIAL NETWORKING SERVICES

The DoD definition above includes SNS as collaborative Internet-based tools but does not define it. For the purposes of this paper, the term Social Networking Service(s) is defined as Internet-based services that allow individuals and organizations, represented by a profile, to share and exchange information and connect with others. SNS includes blogs and microblogs, Internet forums and message boards, photo and video sharing, social networking websites, and Wikis.

---

<sup>10</sup> Deputy Secretary of Defense, “Directive-Type Memorandum (DTM) 09-026 - Responsible and Effective Use of Internet-Based Capabilities,” (Washington D.C.: February 25, 2010), <http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-026.pdf>. (accessed August 23, 2010).

<sup>11</sup> Ibid.

**Blogs and microblogs** are regularly updated websites maintained by individuals to describe events, provide commentary and news, or act as online diaries. Blogs can contain embedded links to other websites, text, or images and often encourage readers to comment on postings as a way to foster interactive communications.<sup>12</sup> A microblog is just a blog with short messages. Twitter, the most frequently used microblogging site, limits its text-based postings (Tweets) to 140 characters or small photo and video files. Other social networking websites like Facebook offer microblogging services referred to as “status updates”.<sup>13</sup>

**Internet forums and message boards** are best described as modern electronic bulletin boards using web-based applications to post user generated content.<sup>14</sup> Users of these services build relationships by discussing various topics posted to the forums and message boards.

**Photo and video sharing** involves Web-based applications for publishing digital photographs and videos online where they can be shared with other users, who have the option to comment on the content. This online sharing that takes place on popular sites like YouTube and Flickr also leads to relationship building and interaction.<sup>15</sup>

**Social networking websites** like Facebook, Bebo, and LinkedIn allow people to interact with their personally generated network of associates.<sup>16</sup> Interactions include messaging, photo and video sharing, news stories, gaming, blog postings, updates to personal profiles, and dating.<sup>17</sup>

Wikipedia, the most recognized wiki website, defines a **wiki** as “a website that allows the easy creation and editing of any number of interlinked web pages via a web

---

12 Donald K. Wright and Michelle D. Hinson, “Examining How Public Relations Practitioners Actually are Using Social Media,” *Public Relations Journal* 3 (3), Summer 2009, 11.

13 Jennifer Barbee. "What the Hell is a Microblog?." March 2, 2010  
<http://dotcomconfessions.com/dotcom-diva-unplugged/what-the-hell-is-a-microblog> (accessed December 1, 2010).

14 Wright and Hinson, “Examining How Public Relation,” 12.

15 Ibid., 12–13.

16 Ibid., 13.

17 Dukemorales, "Social Network Services." August 2, 2009. <http://forum.wareseeker.com/social-network-service-t1934.html> (accessed December 1, 2010).

browser using a simplified markup language.”<sup>18</sup> Wikis are often used “...to create collaborative websites, to power community websites, for personal note taking, in corporate intranets, and in knowledge management systems.”<sup>19</sup>

## **B. CURRENT DOD USES OF SNS**

### **1. DoD and SNS**

Thus far, the military has used SNS mainly to provide domestic populations with public affairs information, and command information, with little emphasis on influencing external and foreign audiences. Examples of the DoD using SNS include the Department of Defense’s<sup>20</sup> and United States Army’s<sup>21</sup> Facebook pages. As of September 14, 2010, the DoD Facebook account had 46,613 friends. A review of status updates and Twitter feeds show that DoD organizations primarily use SNSs to conduct press releases and re-post news stories. This allows the DoD organizations to get ahead of the news cycle by getting their information out first. International Security Assistance Forces (ISAF)<sup>22</sup>, for example, has a Twitter account that allows NATO Forces in Afghanistan to publish official statements rapidly in an attempt to be the first to issue a story concerning security in Afghanistan. In accordance with DTM-09-029, these sites are run by the command’s public affairs officers.<sup>23</sup>

---

18 Scott Mitchell, “Wiki,” Wikipedia, The Free Encyclopedia, (2010), <http://en.wikipedia.org/wiki/Wiki>, (accessed August 25, 2010).

19 Ibid.

20 Department of Defense, “DoD,” Twitter, <http://twitter.com/DeptofDefense> (accessed August 30, 2010).

21 The U.S. Army, “U.S. Army,” Twitter, <http://twitter.com/USArmy> (accessed August 30, 2010).

22 International Security Assistance Force, “ISAF,” Twitter, <http://twitter.com/ISAFmedia> (accessed August 30, 2010).

23 Department of Defense, “MilSuite-milWiki,” Program Executive Office Command, Control and Communications-Tactical (PEO C3T). <https://www.kc.army.mil/wiki/MilSuite> (accessed September 9, 2010).

## 2. Senior Military Leaders and SNS

The few senior leaders that use Facebook, such as Admiral Mike Mullen<sup>24</sup> and Admiral James Stavridis<sup>25</sup>, mainly use it for command information and press releases. In fact, on Admiral Mullen's Facebook page there is a caveat that states the site is not an official source for information about the Chairman of the Joint Chiefs of Staff.<sup>26</sup>

While this is an open forum, it's also intended to be a family friendly one. I look forward to hearing from you, but please keep your comments and wall posts appropriate or they will be removed.<sup>27</sup>

This is exactly the type of comment, as will be shown later, that drives followers away from a SNS and degrades the interactive communication desired by users. Additionally, the DoD has embraced the internal process applications of using wikis like Microsoft's SharePoint for collaborative processes required for unit operations. According to Program Executive Office Command, Control and Communications-Tactical (PEO-C3T), developer of DoD's internal Web 2.0 social media [SNS] applications:

Today's soldiers are accustomed to Web 2.0 social media applications like Facebook™, Wikipedia™, and Blogger™ as well as media sharing sites like Flickr™ and YouTube™. The current generation is commenting on blogs, editing wikis, making connections in social networks, and sharing and communicating with others on a global scale. This change in culture that is spreading across private industry comes in direct conflict with the Military tradition of sharing with those who have a need to know. Military information is being shared across the Web in a non-secure setting, and the security ramifications are real. MilSuite offers the same social media applications that are being used in the public domain, but allows users to share through secure AKO/DKO and CAC authentication.<sup>28</sup>

---

24 Mike Mullen, "Admiral Mike Mullen, Chairman of the Joint Chiefs of Staff," Facebook.com, <http://www.facebook.com/admiralmikemullen#!/admiralmikemullen?v=wall> (accessed August 28, 2010).

25 James Stavridis, "James Stavridis," Facebook.com, <http://www.facebook.com/james.stavridis> (accessed August 28, 2010).

26 Ibid.

27 Mullen, "Admiral Mike Mullen, Chairman of the Joint Chiefs of Staff," (accessed August 28, 2010).

28 DoD, "MilSuite-milWiki," (accessed September 9, 2010).

The DoD's internal Web 2.0 media takes three forms: "milBlog"<sup>29</sup>, "milWiki"<sup>30</sup> and "milBook"<sup>31</sup>. The DoD has seen the utility of these sites, but struggles to use them while maintaining operation's security (OPSEC). The tools the DoD has created are protected behind a security layer which restricts access to a selected population. This approach limits the audience to internal employees with authenticated access, thereby making it impossible to target, inform, or influence external or foreign audiences.

### **C. U.S. ADVERSARIES' USE OF SNS**

Unlike the DoD, U.S. adversaries are using SNS to influence groups of people by publishing doctrine, beliefs, and establishing interactive communications; not just providing news releases. The following cases illustrate how some U.S. adversaries' are using SNS to influence.

#### **1. Umar Abd al-Hakim**

In December of 2008, Umar Abd al-Hakim of Syria posted a claim and directive on al-Faloja.com<sup>32</sup> that "jihadis have successfully penetrated YouTube and it is now time to more directly market to the masses."<sup>33</sup> Umar gives an overview of how to employ Facebook for the use of propaganda and why it will be useful in spreading Islamic jihad propaganda. He states that jihadists have already had success raiding YouTube, and because of the widespread use of Facebook, it needs to be exploited as well in order to

---

29 MilBlog is a place to find and share the latest news, insider articles, comments and posts from the DoD community. It is designed to invite collaboration through discussion and comments on news, events and announcements that impact the greater AKO/DKO community.

30 MilWiki is a Knowledge Management tool used by the AKO/DKO community. From the Hawaiian word for "fast," a wiki is a Web site that is editable by anyone who can access it. It is a powerful tool and a living knowledge bank where experts are encouraged to contribute their experience and knowledge and update the information as it happens. milWiki's goal is to capture the intellectual property of the AKO/DKO community and allow users to easily locate and expand upon that knowledge through community updates.

31 MilBook is an initiative to connect people across the AKO/DKO community. MilBook act as a central hub for networking workforce professionals with others of similar interests, much like the popular social media sites Facebook and LinkedIn. Users have the ability to share information through group blogs, discussions and private wiki documents allowing secure communities of interest to grow and connect with others across the greater military community.

32 Al-Faloja.com is a popular jihadi forum.

33 Will McCants, "Invading Facebook: Theory and Practice." December 17, 2008. <http://www.jihadica.com/invading-facebook-theory-and-practice/> (accessed March 3, 2010).

fight the media's attack of jihadist websites and online forums. By utilizing Facebook, Umar feels that jihadists can move from the online forums and better engage the common people and Americans to show them the reality of their losses in Iraq and Afghanistan. He claims that anyone can join Facebook and use the tool to reach millions of people just like Obama [U.S. President Barack Obama] used Facebook to get votes.<sup>34</sup>

Umar is attempting to exploit the existing social network to reach audiences with jihadist propaganda. In these blog postings, Umar gives both theory and practical guidance to followers of his blog.<sup>35</sup> The importance of SNS like Facebook, Twitter, and YouTube for communication has been identified by other jihadi propagandists as well as by legitimate organizations throughout the world.

## **2. Digital Hate and Terrorism Project**

Recently, the Simon Wiesenthal Center's Digital Hate and Terrorism Project identified nearly 10,000 hate and terrorist websites, hate games, and other postings, although not all were Islamic or jihadist related. Since September 11, 2001, the project reports an increase in jihadist sites related to recruiting, fundraising, and training. The greatest increase in digital hate has been seen on sites like Facebook and YouTube. This increase has originated primarily from Europe and the Middle East.<sup>36</sup> According to researchers from the Digital Hate and Terrorism Project:

...terrorists and their supporters turned to the Internet for the same reasons that brought domestic extremists online. It includes the ease of use, the unprecedented reach of the technology, the difficulty to monitor, censor, or control online communications, as well as its vast potential to empower the disenfranchised and the ability to belittle real and imagined enemies.<sup>37</sup>

---

34 McCants, "Invading Facebook," (accessed March 3, 2010).

35 Ibid.

36 The Simon Wiesenthal Center, "iReport: Online Terror Hate The First Decade," Snider Social Action Institute, <http://www.kintera.org/site/apps/s/link.asp?c=fwLYKnN8LzH&b=4145951> (accessed June 10, 2010).

37 Ibid.

### 3. Anwar Al-Awlaki

Another example of Jihadist influence using SNS involves Anwar Al-Awlaki. Al-Awlaki is the U.S. born Muslim cleric who has received much notoriety in the U.S. media for his anti-U.S. sermons and connection to the failed Christmas day bomb plot. Some Muslim scholars are confused by the popularity Anwar Al-Awlaki enjoys because he does not have the education and training necessary to warrant a religious following.<sup>38</sup> His popularity may have something to do with his ability and skill in using the Internet. Al-Awlaki has a Facebook page, blog, and several YouTube videos on the Internet. He uses these sites to spread his radical ideology and to recruit for the global jihad. He has been so active on these sites that he is now described as the bin Laden of the Internet.<sup>39</sup> This may explain why he seems to be so popular with young British and American Muslim youth.<sup>40</sup> His choice of the Internet resonates well in the population he has targeted. He seems to have the biggest presence on YouTube where his sermons are posted.<sup>41</sup>

Al-Awlaki has most likely chosen social media sites because he knows young Americans and British men are on these popular sites. This is a trendy way for him to sell his message. It allows people to watch his sermons and post their own questions and comments on the site. This site gives him further global reach and serves as a “global mosque” where he can preach to his parishioners all over the world.

---

38 Nine Eleven Finding Answers Foundation. “Anwar al Awlaki: Pro al-Qaida Ideologue with Influence In the West,” NEFA Foundation, (2009), [http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefabackgrounder\\_alawlaki.pdf](http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefabackgrounder_alawlaki.pdf) (accessed 6/10/2010); Diana Temple-Raston, “Officials: Cleric Had Role in Christmas Bomb Attempt,” (2010), <http://www.npr.org/templates/story/story.php?storyId=123894237> (accessed March 18, 2010).

39 Loveday Morris, “The Anatomy of a Suicide Bomber,” The National (2010), <http://www.thenational.ae/apps/pbcs.dll/article?AID=/20100102/WEEKENDER/701019622/1306> (accessed March 11, 2010).

40 Bobby Ghosh, “How Dangerous is the Cleric Anwar al-Awlaki?,” Time (January 13 2010), <http://www.time.com/time/world/article/0,8599,1953426-3,00.html> (accessed March 3, 2010).

41 Anwar al-Awlaki, “Anwar al-Awlaki Lectures,” Youtube.com <http://www.youtube.com/user/AnwarAwlakiLectures#p/p> (accessed September 16, 2010).

In "44 Ways to Support Jihad," a sermon posted on Al-Awlaki's blog in February 2009, al-Awlaki encouraged others to "fight jihad", and explained how to give money to the mujahedeen or their families after they have died. Al-Awlaki's sermon also encouraged others to conduct weapons training and raise children "on the love of Jihad".<sup>42</sup> On December 11, 2008, he condemned any Muslim who seeks a religious decree "that would allow him to serve in the armies of the disbelievers and fight against his brothers".<sup>43</sup> Through these social media sites, Anwar al-Awlaki has been able to inspire, mentor and communicate with many of the recent terrorists who threatened the United States. Nidal Malik Hasan,<sup>44</sup> Umar Farouk Abdulmutallab,<sup>45</sup> and Faisal Shahzad<sup>46</sup> were all influenced by him.

## **D. DETERMINING THE IMPORTANCE OF SNS**

### **1. Media Usage**

With the Internet's rapid global spread, traditional information operations media, like leaflets, handbills, and even radio and loudspeaker broadcasts may be losing their ability to match the dissemination of information on-line. According to InsideFacebook.com, Facebook has been growing at around 700,000 to 750,000 new users per day, and about 70 percent of that growth is happening outside the United

---

42 Anti-Defamation League, "Profile: Anwar al-Awlaki," Anti-Defamation League, (2009), [http://www.adl.org/main\\_Terrorism/anwar\\_al-awlaki.htm](http://www.adl.org/main_Terrorism/anwar_al-awlaki.htm) (accessed June 10, 2010).

43 Bruce Egerton, "Imam's E-Mails to Fort Hood Suspect Hasan Tame Compared to Online Rhetoric," The Dallas Morning News, (November 29, 2009), sec Local. [http://www.dallasnews.com/sharedcontent/dws/news/texassouthwest/stories/DN-shootermam\\_29pro.ART.State.Edition2.4b91281.html](http://www.dallasnews.com/sharedcontent/dws/news/texassouthwest/stories/DN-shootermam_29pro.ART.State.Edition2.4b91281.html) (accessed June 10, 2010).

44 Pamela Hess and Anne Gearan, "Levin: More E-mails From Ft. Hood Suspect Possible: Senator Says Investigators May Reveal More Troubling E-mails From Alleged Ft. Hood Shooter," ABC News Internet Ventures. 2009. Available from <http://abcnews.go.com/Politics/wireStory?id=9143884>.

45 Nick Allen, "Detroit: British Student in al-Qaeda Airline Bomb Attempt," Telegraph, December 26, 2009, sec World News. <http://www.telegraph.co.uk/news/worldnews/northamerica/usa/6886600/Detroit-British-student-in-al-Qaeda-airline-bomb-attempt.html>; Umar Farouk Abdulmutallab is a Muslim Nigerian citizen who attempted to detonate plastic explosives hidden in his underwear while on board Northwest Airlines Flight 253, en-route from Amsterdam to Detroit, Michigan, on December 25, 2009; United States of America vs. Umar Farouk Abdulmutallab, (United States District Court Eastern District of Michigan Southern Division 2010), [http://www.cbsnews.com/htdocs/pdf/Abdulmutallab\\_Indictment.pdf](http://www.cbsnews.com/htdocs/pdf/Abdulmutallab_Indictment.pdf) (accessed June 10, 2010).

46 NewsCore, "Times Square Suspect Contacted Radical Cleric." May 1, 2010. [http://www.myfoxdetroit.com/dpps/news/times-square-suspect-contacted-radical-cleric-dpgonc-km-20100506\\_7411371](http://www.myfoxdetroit.com/dpps/news/times-square-suspect-contacted-radical-cleric-dpgonc-km-20100506_7411371) (accessed June 10, 2010).

States.<sup>47</sup> Additionally, statistics from Nielsen Online show that by the end of 2008, online social networking had even overtaken email in terms of worldwide reach. According to the study, 66.8 percent of Internet users across the globe accessed member communities [SNS], compared to 65.1 percent for email. In 2008, users spent 63 percent more time on SNS than they did in the previous year.<sup>48</sup>

A common objection to the use of SNS for Internet based influence operations is the lack of Internet access and use of SNS in developing countries. However, that situation could change rapidly if demand develops. A satellite and terrestrial business unit director for STMicroelectronics said that within weeks of the Iraqi regime's fall, they received orders for 1.5 million satellite decoder chips. Additionally, STM reported that it sold more than 2.5 million chips between April and December of 2003 to distributors that said they were building digital satellite decoders for shipment to Iraq.<sup>49</sup> The explosion of satellite TVs in Iraq after the U.S. invasion in 2003 shows that new technologies can be adopted very quickly, even in developing countries, if the population desires the capability.

## **2. Internet and SNS Growth**

Worldwide, the Internet has grown at an average rate of 444 percent, and Facebook's penetration index is currently 26.3 percent among total Internet users. So, what does this mean for the use of SNS to influence? In order to graphically show the potential usefulness of SNS for influencing in various countries, we have used a simple mathematical model. Using Microsoft Excel, the model graphically illustrates the potential future growth of SNS based off of a country's demographics, estimated Internet growth rate, and estimated Facebook growth rate.

---

47 Justin Smith, "Inside Facebook Tracking Facebook and the Facebook Platform for Developers and Marketers" (accessed October 27, 2010).

48 Nielsen Online, "March 2009 Global Faces and Networked Places: A Nielsen Report On Social Networking's New Global Footprint," The Nielson Company. (2009), [http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen\\_globalfaces\\_mar09.pdf](http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen_globalfaces_mar09.pdf) (accessed September 14, 2010).

49 Paul Polishuk, "Free Satellite TV's a Hit in a Free Iraq." *Iraq Telecom Newsletter*, February, 2004, 2.

In our model, the following variables are used for each country examined: total population (P), total Internet users (I), total non-Internet users (x), total Internet users (not using SNS) (y), and total SNS (Facebook) users (z). The coefficients in our model are  $\beta$ , the average annual Internet growth rate, and  $(\mu)$ , the average annual Facebook growth rate. Thus, the current number of non-Internet users within a population decreases at the estimated average annual Internet user growth rate  $((P-I)*\beta)$ . Next, the number of current Internet users that do not use SNS increases by the number of new Internet users and decreases by the number that begin using SNS at the estimated average annual SNS growth rate  $(I+(P-I)*\mu)$ , while, the total number of SNS users increase at the average annual rate  $(I*\mu)$ .<sup>50</sup>

Additionally, the model operates under three assumptions. First, the population moves through stages, often described as the hierarchical sequence of effects.<sup>51</sup> The specific hierarchical sequence that we used for this model is illustrated in Figure 1.



Figure 1. Hierarchical Sequence of Effects

The second assumption is that a country's population will remain constant although, in reality, populations are usually increasing or declining to some extent. The third and final assumption is that the available Facebook usage statistics are a good approximation for determining future SNS use in a given country over the next five years.

---

50 See Appendix A and B.

51 Joe A. Dodson Jr. and Eitan Muller, "Models of New Product Diffusion through Advertising and Word-of-Mouth," Discussion Paper No. 182 ed., 1976, 5.

Figures 2–4 show expected trends for non-Internet users (x), depicted by the blue line plots, total Internet users (non-SNS) users (y), depicted by the red line plots, and total Facebook users (z), depicted by the green line plots. The graphs represent three countries, Colombia, Iraq, and Venezuela.

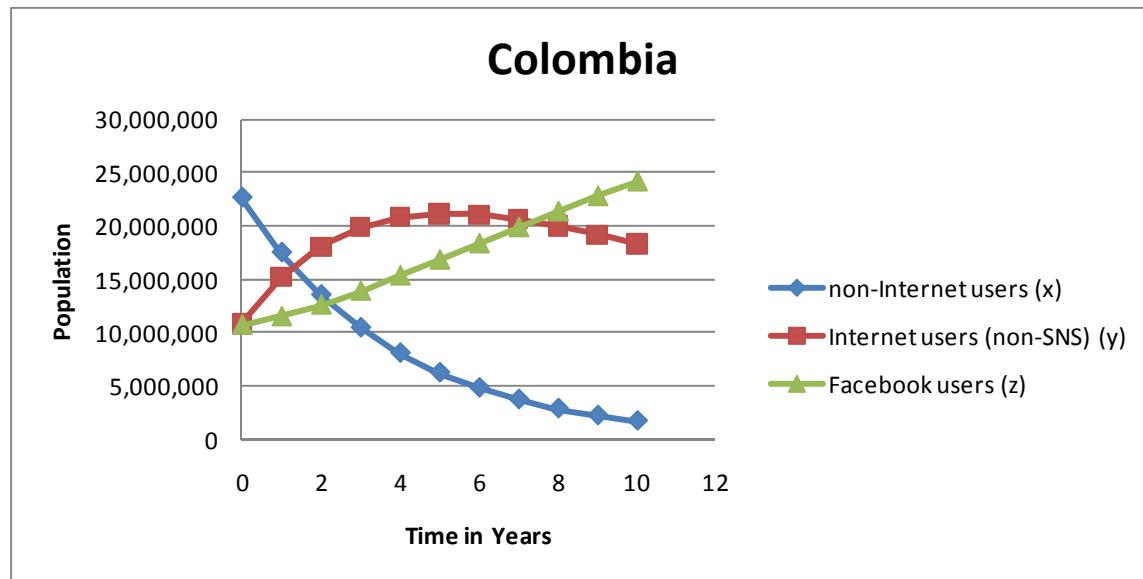


Figure 2. Results for Colombia

Based on the available statistical data, Colombia has experienced an average annual Internet growth rate of 261 percent and an average annual Facebook growth rate of 172 percent. Colombia's current Internet user penetration is 48 percent and its SNS users among total Internet users is 49 percent.<sup>52</sup> As shown by the graph in Figure 2, Colombia's total non-Internet users will continue to decline steadily while its total SNS users will increase rather sharply. As a result, potentially within one year, over half of Colombia's total population will be using the Internet and over 50 percent of those users will be using SNS.

<sup>52</sup> Miniwatts Marketing Group, "Internet Usage Statistics; The Big Picture." 2010. <http://www.Internetworkstats.com/stats.htm> (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World; Facebook Usage and Facebook Penetration Statistics For The Main World Geographic Regions." 2010. <http://www.Internetworkstats.com/stats25.htm> (accessed October 27, 2010); See Appendix A and B.

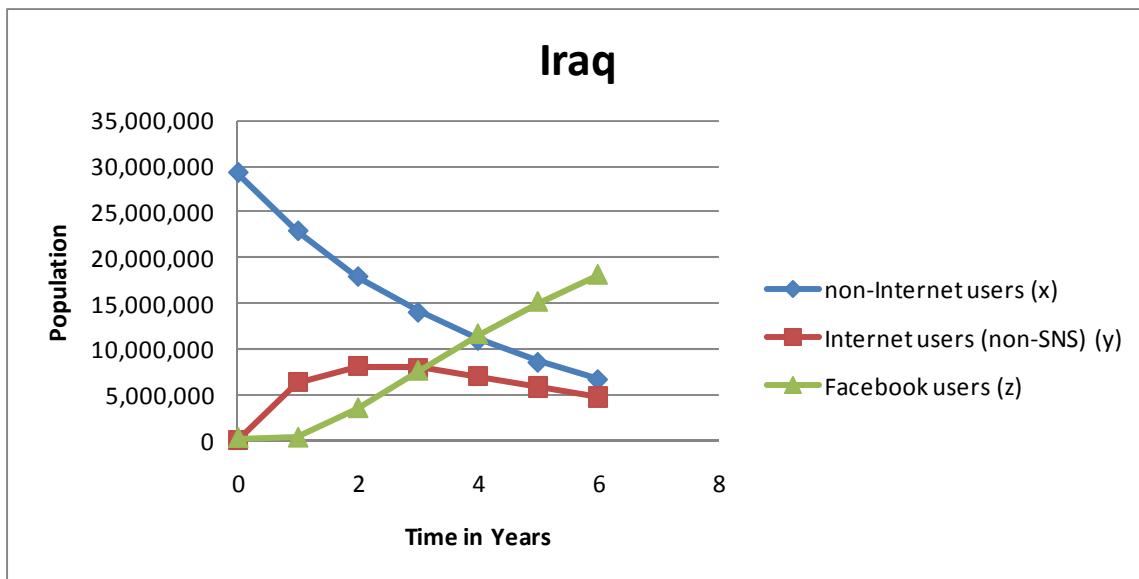


Figure 3. Results for Iraq

Based on the available statistical data, Iraq has experienced an average annual Internet growth rate of 250 percent and an average annual Facebook growth rate of 334 percent. Iraqi's current total Internet user penetration is low at 1.1 percent, however its SNS user penetration has increased to almost 83 percent among total Internet users in less than two years.<sup>53</sup> As shown by the graph in Figure 3, Iraq's total non-Internet users will continue to decline steadily while its total SNS users will also increase steadily. Due to Iraq's high growth rate potential, it should experience significant Internet and SNS user growth over the next four to six years.

<sup>53</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010); See Appendix A and B.

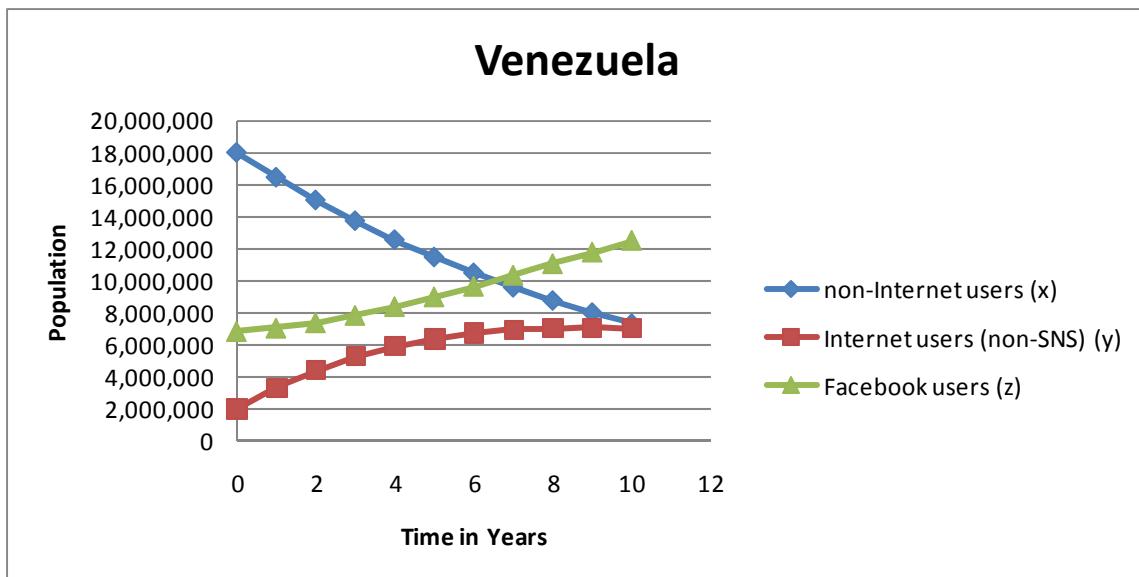


Figure 4. Results for Venezuela

Based on the available statistical data, Venezuela has experienced an average annual Internet growth rate of 92 percent and an average annual Facebook growth rate of 184 percent. Venezuela's current Internet user penetration is 33 percent and its SNS among total Internet users is 74 percent.<sup>54</sup> As shown by the graph in Figure 4, Venezuela's total SNS users will increase steadily over the next six years.

Using the results from Figures 2–4, Figure 5 shows how long it will take before each country's online SNS population exceeds its offline population. The bar chart shows that within as little as three to seven years, all of the countries analyzed could have more people on-line and using SNS than not. In effect, the shorter the bars the sooner SNS may be useful for information operations messaging in a given country.

<sup>54</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010); See Appendix A and B.

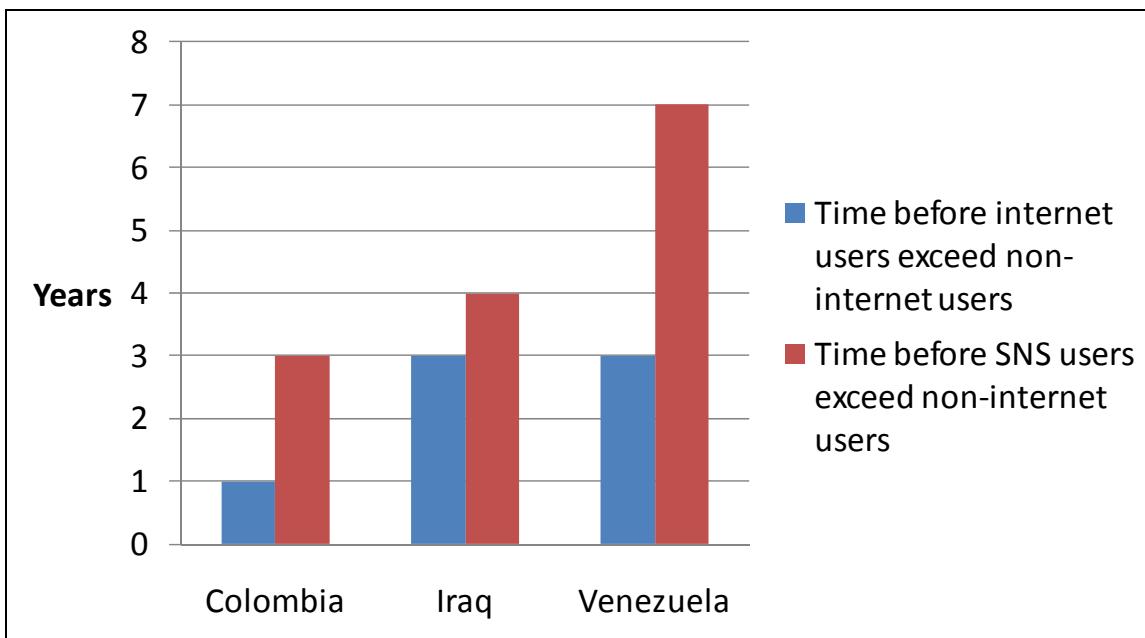


Figure 5. Combined Internet & SNS Growth Over Time

## E. BENEFITS OF SNS

### 1. Interactivity

SNS can be a powerful tool for influencing a large audience or an obscure one. SNS creates structured Internet communities and puts like minded people in touch with others. SNS can expand one's reach and overcome geographical boundaries by removing most of the barriers related to distance and time.<sup>55</sup> The effectiveness of SNS seems to be the interaction between individuals, which rallies the network or group around an action or an objective. It is not necessarily about the individuals; it is about what they have in common; and it is about forming a significant relationship and actually doing something with it.<sup>56</sup> Anyone can log on and feel instantly connected to a group of people, no matter what time of day it is or where they are in the world. This interaction leads to a feeling of being part of a larger community. According to the popular business-networking site

<sup>55</sup> New Way Media, "Social Media," CoDak Corporation, (2008), <http://newwaymedia.com/web/social-media/> (accessed September 15, 2010).

<sup>56</sup> Eric Janssen, "Why Are Social Networks Popular?," Biznik. (2010), <http://biznik.com/articles/why-are-social-networks-popular> (accessed September 15, 2010).

Biznik.com, the benefits of these discussions and friendships are what attracts the attention of other like-minded people who see the value in the relationships being formed around them and want to be a part of them.<sup>57</sup> The significance of the relationships formed creates passion; this passion attracts attention, and this attention can lead to action.<sup>58</sup> Furthermore, the social learning theory suggests that people learn by observation in social situations, and that they will begin to act like people they observe even without external incentives. SNS provides all of the necessary steps for social learning to occur.<sup>59</sup> The benefit for influence of this is that these unique networks of like-minded, sometimes passionate, individuals often act on their discussions.

## **2. Speed, Scope, and Scale**

According to the study by Pavlou and Stewart: Measuring the Effects and Effectiveness of Interactive Advertising: a Research Agenda, interactivity is not the only advantage to SNS. The study concluded that while older media, such as traditional print and broadcast media, do provide some degree of interactivity, the new media offers better speed, scope, and scale of interactivity.<sup>60</sup> SNS appeals to people's basic instincts and human nature as social animals to interact, from new relationships, and reinforce existing ones. Additionally, the interactivity that SNS provides has the potential to replicate social gatherings where people come together, interact, and communicate. However, the advantage that SNS provides is that instead of only a few, one can reach hundreds, thousands, or even millions in multiple locations almost instantaneously. Additionally, it seems that its ease of use and how people respond to this medium is a contributing factor.

---

57 Janssen, "Why Are Social Networks Popular?" (accessed September 15, 2010).

58 Ibid.

59 Moira Burke, Cameron Marlow, and Thomas Lento, "Feed Me: Motivating Newcomer Contribution in Social Network Sites," Paper presented at Proceedings of the 27th International Conference on Human Factors in Computing Systems. (2009), <http://delivery.acm.org/10.1145/1520000/1518847/p945-burke.pdf?key1=1518847&key2=0487944821&coll=GUIDE&dl=GUIDE&CFID=104542066&CFTOKE N=70880639> (accessed 8 September 2010), 946.

60 Pavlou and Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: a Research Agenda," (accessed October 4, 2010).

Being able to tweet a preformatted response that is automatically hyperlinked into an article you are reading is much easier than submitting a letter to the editor, calling or even emailing all your friends.

### **3. Gaining Trust**

Although people can be informed through the use of the Internet, they may not believe the messages due to trust issues with the content or source of information.<sup>61</sup> SNS has the potential to bridge the trust gap between viral Internet messaging and face-to-face interaction. According to a study published in the *Journal of Knowledge Management, Motivation and Barriers to Virtual Knowledge-Sharing Practice*, by Alexander Ardichvilli, Vaughn Page, and Tim Wentling, knowledge based trust comes from the interaction between a trustor and a trustee. It develops as the two parties get to know each other. Therefore, people are more likely to share information and trust the shared information if the network includes persons with whom they already have some social association. This previous association affects a person's willingness to share information as well as their inclination to use the network as a source of information.<sup>62</sup>

For the U.S. military, trust is a huge factor for influence campaigns. SNS has the potential of building this trust faster and at a larger scale than ever before. The online social networking experience can often be described or categorized in two ways as related to face-to-face interactions. The first is like attending a social event where you may not know all of the people in attendance. On these sites, such as Twitter, people want to make new connections, and at the same time, have their thoughts and ideas known.<sup>63</sup> Over time, trust builds among individuals and connections are made. These sites allow one to tap into the collective consciousness of others on a network, outside of one's internal network, with whom one may otherwise have no means of establishing a personal connection. The second category can be described as attending a social

---

<sup>61</sup> Chris Brogan and Julien Smith, *Trust Agents: Using the Web to Build Influence and Improve Reputation and Earn Trust*. 1 ed. (New Jersey: John Wiley & Sons Inc., 2009).

<sup>62</sup> Alexander Ardichvilli, Vaughn Page, and Tim Wentling, "Motivation and Barriers to Virtual Knowledge-Sharing Practice." *Journal of Knowledge Management* 7, no. 1 (2003): 72.

<sup>63</sup> Steve Thornton, "Twitter versus Facebook: Should you Choose One?" 2009. <http://www.twitip.com/twitter-versus-facebook/> (accessed October 27, 2010).

gathering where most people know each other. On these sites, such as Facebook, people usually already know one another on a personal level and tend to feel more relaxed; conversations are familiar and center on shared experiences and connections.<sup>64</sup> Establishing one or both of these levels of trust may be necessary to influence depending on the situation. SNS facilitates attending these social gatherings and developing trust much easier and to a larger scale than ever before.

#### **F. MEASURING SNS SUCCESS**

The speed, scale and scope of SNS could potentially provide the DoD with an ideal platform for influence operations. SNS also has the added benefit of potentially providing Measures of Performance (MOP) and Measures of Effectiveness (MOE) through statistical data and feedback about the target audiences. While it has been possible to obtain data and feedback from traditional media influencing techniques, SNS could provide a direct measure of the level of influence achieved through examination of the frequency and type of interaction between the influencee and the influencer.<sup>65</sup> There are at least two parts to interactive messaging: the influencer presents the message and the target audience responds to it.<sup>66</sup> For a message to be effective, both the sender and the receiver must mutually agree that the receiver has understood the message.<sup>67</sup> Feedback from the receiver to the sender plays an important role in influencing because it is important that the target audience understands exactly what the sender intends, and the sender should, in turn, adjust the message so that it is clearly understood.<sup>68</sup> The ability to

---

64 Thornton. "Twitter versus Facebook: Should you Choose One?" (accessed October 27, 2010).

65 Pavlou and Stewart, Measuring the Effects and Effectiveness of Interactive Advertising: a Research Agenda, (accessed October 4, 2010).

66 Herbert H. Clark and Susan E. Brennan, "Grounding in Communication in L.B. Resnick, J.M. Levine, and S.D. Teasley (Eds.), Perspectives on Socially Shared Cognition, (Washington, D. C.: American Psychological Association), 127–149.

67 Herbert H. Clark and Deanna Wilkes-Gibbs, "Referring as a Collaborative Process," *Cognition*, 22, 1–39.

68 Pavlou and Stewart, Measuring the Effects and Effectiveness of Interactive Advertising, (accessed October 4, 2010).

interact and gather MOPs and MOEs with SNS can save a lot of time, effort, and money spent on targeting the wrong target audience and/or targeting the right target audience the wrong way.

### **III. MARKETING ON SOCIAL NETWORKING SERVICES**

Marketing is an essential aspect of successful businesses in the U.S. and a critical factor that has helped the U.S. economy become one of the strongest in the world. Successful U.S. businesses have marketed to and influenced the population of the nation as well as populations around the world.<sup>69</sup> With the introduction of Social Networking Services (SNS), businesses have leaped at the opportunity to use them as marketing tools. This chapter will review traditional marketing practices and describe the emerging best practices for marketing through SNS as identified by marketing researchers and professionals.

#### **A. TRADITIONAL DEFINITIONS OF MARKETING**

The Kellogg Graduate School of Management at Northwestern University defines marketing as "...the effort towards trying to understand customers, so as to deliver goods and services to satisfy their desires."<sup>70</sup> The Harvard Business Review defines it as

...the process of planning and executing the development, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives.<sup>71</sup>

Yet another definition of marketing comes from the American Marketing Association:

...the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.<sup>72</sup>

Inherent in each of these definitions is the idea of exchanging ideas, services, or goods to satisfy a customer's needs while benefiting the provider's objectives. In order

---

69 Dan Chilton, "Information Operations versus Civilian Marketing and Advertising: A Comparative Analysis to Improve IO Planning and Strategy." Master of Science in Information Systems and Operations, (Monterey, CA: Naval Postgraduate School, 2008), 23.

70 Dawn Iacobucci, *Kellogg on Marketing* (New York, NY: John Wiley and Sons, Inc., 2001)

71 Alvin J. Silk, "What is Marketing" (Boston, MA: Harvard Business School Press, 2006)

72 American Marketing Association, "About AMA: Marketing Definition," (October, 2001): <http://www.marketingpower.com/AboutAMA/Pages/DefinitionofMarketing.aspx> (accessed October 28, 2010).

for the exchange to satisfy and benefit all participants, successful marketing strategists rely on the “four P’s” of marketing: product, price, place, and promotion. These are the basis for marketing strategy development. “Each of the “four P’s” is a variable you control in creating the marketing mix that will attract customers to your business.”<sup>73</sup> The four P’s can be further categorized into the fundamentals of:

...understanding the marketplace and customer; market segmentation and targeting; branding; distribution; product and price planning; and promotion.<sup>74</sup>

It is not the intent of this chapter to restate longstanding fundamental marketing practices. The fundamentals listed above are the basis of current and emerging practices for marketing professionals using SNS. The following describes and gives examples of best practices for content marketing on SNS.

## **B. BEST PRACTICES FOR CONTENT MARKETING ON SNS**

According to a recent article by Gordon Plutsky, Director of Marketing at King Fish Media:

Content marketing has become one of the most important trends in the [marketing] field especially as mass markets dissolve and media choices multiply... Smart and savvy companies have positioned themselves as authoritative experts and trusted sources of information by creating their own content.<sup>75</sup>

Content marketing covers all marketing formats that involve the creation or sharing of content for engaging the current and potential customer base. The intent of content marketing is to deliver high-quality, relevant, and valuable information in order to cause consumer action. The benefits of content marketing include retaining reader

---

<sup>73</sup> Cole Ehmke, Joan Fulton, and Jayson Lusk, "Marketing's 4 P's: First Steps for New Entrepreneurs," (Purdue Extension. EC-730): [www.extension.purdue.edu/extmedia/EC/EC-730.pdf](http://www.extension.purdue.edu/extmedia/EC/EC-730.pdf) (accessed October 28, 2010); The right product to satisfy the needs of your target customer; the right product offered at the right price; the right product at the right price available in the right place to be bought by customers; informing potential customers of the availability of the product, its price and its place.

<sup>74</sup> Chilton, “Information Operations versus Civilian Marketing and Advertising,” 24.

<sup>75</sup> Gordon Plutsky, “6 Tips for Connecting With Social Media Content.” (2010): <http://www.imediaconnection.com/content/25860.asp> (accessed October 22, 2010).

attention and improving brand loyalty.<sup>76</sup> Researchers and business professionals have identified SNS as excellent media to conduct content marketing and have developed the following best practices.

### **1. Determine the Information Needs of the Audience**

Do research to gain an understanding of the information needs of the audience. Linger in the social network community to discover what topics are being discussed, what content is being viewed, and what of that content is liked or disliked.<sup>77</sup> “People want news and information about the things they care about-and they want it right now.”<sup>78</sup> By understanding what the social community is interested in, you can develop the appropriate messages and content that will attract consumers and not drive them away. Groups, forums, and pages have followers because they are catering to a specific interest. Discovering the common interests of the audience and monitoring the interests as they evolve is critical to successful SNS marketing.

The public does not use social media services to make direct purchases. Therefore, companies should only provide the types of information and interaction necessary to promote products and influence sales. Proper audience analysis and market research will reveal the types of messaging that are appropriate.

BMW’s Mini Cooper line of automobiles has been a web-savvy brand since its launch in 2002. When the buzz around the brand began to fade, the marketing manager hired MotiveQuest to analyze online conversations about the Mini brand and its competitors. MotiveQuest monitored SNS and found that owners discussed topics ranging from performance and handling to community events and picture sharing. Many posts were from non-Mini owners asking about customer satisfaction. Based on this analysis, Mini recruited its most loyal and active customers to help regenerate a buzz about the brand. The company invited bloggers to test drive the latest vehicle models as

---

<sup>76</sup> Content Marketing Institute, “Content Marketing,” Wikipedia the Free Encyclopedia, (2010): [http://en.wikipedia.org/wiki/Content\\_marketing#cite\\_note-0](http://en.wikipedia.org/wiki/Content_marketing#cite_note-0) (accessed October 28, 2010).

<sup>77</sup> Plutsky, “6 Tips for Connecting with Social Media” (accessed October 22, 2010).

<sup>78</sup> Larry Weber, *Marketing to the Social Web: How Digital Customer Communities Build Your Business*. 2 ed., (New York, NY: John Wiley & Sons, 2007), 13.

well as participate in community rallies and events. The Mini website also let fans create virtual postcards and push conversations in their own directions.<sup>79</sup>

## **2. Be Transparent With Intentions and Identity**

Failure to be transparent and open about your company's intent for its online social presence will likely alienate audiences who did not come to your SNS pages for direct sales pitches.<sup>80</sup> Customers are also looking for honesty about the identity of the online spokespersons. Sony and Wal-Mart learned this lesson early in their initial efforts to market on the “Sony PSP Blog” and the “Walmarting Across America Blog”. Each of these companies tried to fake the identities of their blog writers and convince readers that the authors were impartial brand loyalists. Readers saw through the fraud.<sup>81</sup>

The CEO of Whole Foods created a controversy for his company when its customers discovered he was posting to stock exchange discussion boards using the alias “Rahodeb.” “Rahodeb” always had positive comments for the Whole Foods brand and negative comments for all competitors. When his actual identity became known, issues were raised about possible stock price manipulation. Ultimately, the Securities and Exchange Commission investigated but took no actions. When questioned about his blog postings, the CEO of Whole Foods claimed he was protecting his brand from negative comments, lies, and attacks.<sup>82</sup>

In another example, Walmart tried to portray an image of something they were not. In a back to school promotion on Facebook, Walmart tried to give fashion, style, and

---

79 Weber, *Marketing to the Social Web: How Digital Customer Communities Build Your Business*, 7.

80 Lee Odden, “Best and Worst Practices Social Media Marketing.” Online Marketing Blog. (February 12, 2009): <http://www.toprankblog.com/2009/02/best-worst-practices-social-media-marketing/> (accessed October 28, 2010).

81 Ibid.

82 Weber, *Marketing to the Social Web: How Digital Customer Communities Build Your Business*, 18–19.

taste advice to students. However, because Walmart has a reputation for discount pricing, not style and fashion, student followers saw Walmart trying to be something they were not, and online reactions were negative.<sup>83</sup>

### **3. You Do Not Control the Message**

In the world of advertising, the ability to control the message is seen as the norm. However, this is not possible when advertising information is distributed through SNS. Recipients will distort and change the message in creative ways to suit their own interests. While protecting a brand's copyright is important, a fine line should be walked between controlling the message and encouraging creativity of brand loyalists.<sup>84</sup> Encouraging the creativity of brand loyalists can lead to opportunities for increased contribution, co-creation, and feedback from the customer base. This feedback is yet another measure of effectiveness on which to measure the SNS marketing campaign.

In 2006, Chevrolet wanted to increase awareness of its new vehicle, the Chevy Aveo, among college students. The company's public relations firm, Weber Shandwick Worldwide, came up with the plan called "Chevy Aveo Livin' Large Campus Challenge"<sup>85</sup> Chevrolet recruited students to live for an entire week inside a Chevy Aveo and encouraged the students to blog, post YouTube videos, and update Facebook pages and MySpace accounts with their own content. Chevrolet estimates that in the five days of the contest the students generated 217 million contacts and got more than one million college students connected to the contest through Facebook, MySpace, and other media. This nontraditional marketing campaign helped establish a powerful connection to the brand.<sup>86</sup> The large number of contacts generated by this campaign is a solid measure of the marketing investment.

---

<sup>83</sup> David Wilson, A Failed Facebook Marketing Campaign, Social Media Optimization: Merging of Traditional Media. SEM and Social Marketing. (2007): <http://social-media-optimization.com/2007/10/a-failed-facebook-marketing-campaign/> (accessed October 18, 2010).

<sup>84</sup> Odden, "Best and Worst Practices Social Media Marketing," (accessed October 28, 2010).

<sup>85</sup> Josh Bernoff and Charlene Li, "Harnessing the Power of the Oh-So-Social Web," MITSloan Management Review. Vol. 49, no. 3 (2008), 36-42, 38.

<sup>86</sup> Bernoff and Li, "Harnessing the Power of the Oh-So-Social Web," 39.

#### **4. Be Interactive: Listening and Participation**

Successful SNS marketing involves participation and listening. Participation requires giving something of value before expecting something in return.<sup>87</sup> Listening to SNS conversations provides a means of measuring effectiveness of messages and identifying potential brand loyalists for future content analysis and collaborative creation.<sup>88</sup> Not listening means that information is only flowing in one direction. As stated in Chapter two of this study, SNS users desire to share and exchange information and connect with others. Failure to listen and participate in conversations will drive subscribers and followers to other sites.

The best Facebook fan pages and blogs have hundreds of comments per post because readers and fans feel invested enough to comment and to make their voices heard.<sup>89</sup>

Community members should be encouraged to interact with each other, and at no time should followers be discouraged from commenting. Marketing professionals recommend creating pages where a moderator can monitor content, perform customer service tasks, and reply to posts as needed.<sup>90</sup> The ability to interact with company representatives can bring repeat customers and encourage new customers. The comments and conversations between customers, and between customers and the company, provide valuable insight to the effectiveness of the marketing campaign.

When Walmart created its Facebook page, it decided to restrict comments to its “Wall Posts” and did not provide a discussion board for its fans. Bloggers noticed this lack of communication on Walmart’s part and flooded the “Wall Posts” with anti Walmart comments. The retailer Target, on the other hand, determined the information needs of its audience, toned down its marketing messages, and allowed fans to

---

87 Odden, “Best and Worst Practices Social Media Marketing,” (accessed October 28, 2010).

88 Ibid.

89 Plutsky, “6 Tips for Connecting with Social Media Content,” (accessed October 22, 2010).

90 Ibid.

communicate. Target reported 7,176 followers, 409 photos, 4483 posts, and 37 hosted discussion groups for its marketing campaign compared to Walmart's 2,000 followers.<sup>91</sup>

### **C. MEASURE SOCIAL ACTIVITY FOR SUCCESS**

Return on Marketing Investment (ROMI) is defined as the optimization of marketing expenditures for the short and long term in support of brand strategy. Increased ROMI leads to increased revenue, profit, and market share for the same amount of marketing expense.<sup>92</sup> The ROMI for a SNS marketing campaign could be based on measurements like the number of fans of a Facebook page, number of followers of a Twitter account, or the number of members in a discussion group. The problem with only counting followers or fans to a SNS posting is that those numbers only account for contacts and do not account for influence. A SNS marketing campaign may have thousands of followers who enjoy the content of the site but do not purchase or spread information about the product. More specific and telling metrics include the number of new contacts generated, sales revenues from new or existing customers, number of persons declaring purchase intent, and the percent of public with a positive perception of the company's brand.<sup>93</sup>

With the advent of SNS, the interaction between marketers and consumers is more pronounced. Consumers can collect as well as create information about particular brands. Similarly, marketers can customize advertising based on information gathered about consumers and improve future products based on consumer comments.<sup>94</sup>

The interactive nature of SNS provides new opportunities for businesses to measure their marketing effectiveness. Providing consumers, both individuals and groups, the opportunity to search for additional or more detailed information on a

---

91 Wilson, "A Failed Facebook Marketing Campaign", (accessed October 18, 2010).

92 Guy R. Powell, "Return on Marketing Investment: Demand More From Your Marketing and Sales Investments" (2003) RPI Press. [http://en.wikipedia.org/wiki/Return\\_on\\_marketing\\_investment](http://en.wikipedia.org/wiki/Return_on_marketing_investment) (accessed November 01, 2010).

93 Plutsky, "6 Tips for Connecting with Social Media Content," (accessed October 22, 2010).

94 Pavlou and Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda," 62-63.

network site allows the marketer to track and quantify the type and level of interest in a given product. For example, a business can provide a general description of a new product and additional links for more detailed or technical data. If consumers want more information, they will likely dig deeper into the website. Computer programs are available to track the “click through rate” on the website, thus providing the marketer with valuable metrics concerning customer interests.<sup>95</sup>

Direct customer feedback is another metric for measuring ROMI. Marketing on SNS, if done properly, provides for interactive participation of both the consumer and marketer. The information provided by the consumer gives the marketer a means for product improvement and customized advertising.<sup>96</sup>

Feedback from consumer to marketer plays an important role in advertising since the consumer should understand exactly what the marketers intend, and the marketer should, in turn, adjust the message so that it is clearly understood... Fundamental to the measurement of effectiveness of interactive advertising is whether consumers are indeed responding and providing feedback. To the extent that advertising fails to elicit feedback, of some type, it is by definition not interactive regardless of the marketer’s intent and the medium used.<sup>97</sup>

The most common form of ROMI is sales. Every marketer wants to relate marketing investments to sales revenue, and marketing on SNS is no different. When marketing on SNS is tied directly to the sale of an item, the metric will be simple to monitor. In other cases where SNS marketing results in a sale later or through another product provider, the effectiveness of the marketing will be harder to measure. Additionally, a sale is not a sale if the consumer is not satisfied with the product and returns it. It is important that consumers expectations, acquired through SNS marketing

---

<sup>95</sup> Pavlou and Stewart, “Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda,” 64.

<sup>96</sup> Ibid.

<sup>97</sup> Ibid., 68.

prior to purchase, are met before counting a sale as a positive measure of effectiveness.<sup>98</sup> The better the interaction prior to purchase, the more likely it is that the consumer will be satisfied with the product.

#### **D. THE FUTURE OF MARKETING ON SNS**

SNS may well become the primary venue for shopping, planning, learning, and communicating. It may be the first place you turn for news, information, and entertainment. Evidence shows that people age 18 to 22 already spend slightly more time on computers at home than they do watching television.<sup>99</sup> SNS may be the most critical information environment around. Like newspapers of the 1800's, television of the late 1900's, and the Internet since 1990, SNS are becoming the center of marketing and information activity.<sup>100</sup> Successful businesses will need to enter the online social network and be capable of providing content that customers desire and participating in the online public environment.<sup>101</sup> It is no longer acceptable to just push information to consumers; companies must instead communicate with them. Interactive listening and participation builds trust and a sense of community that will ultimately bring the company and the consumer closer.<sup>102</sup>

---

98 Pavlou and Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda," 71.

99 Weber, *Marketing to the Social Web: How Digital Customer Communities Build Your Business*, 17.

100 Ibid., 16.

101 Ibid., 16.

102 Plutsky, "6 Tips for Connecting with Social Media Content," (accessed October 22, 2010).

THIS PAGE INTENTIONALLY LEFT BLANK

## **IV. POLITICAL CAMPAIGNING ON SOCIAL NETWORKING SERVICES**

In democracies, the support of citizens is crucial to the success of the political leadership. One cannot obtain a political position without the support of the people. In recent years, the use of the Internet and social networking services (SNS) has changed the dynamic of political campaigning. Politicians who use SNS accept the fact that words and actions go on public record where they gain a large audience, are reviewed, and fact-checked immediately by constituents. The speed, scope, and scale of SNS and how well politicians use them can affect how a person votes, making SNS ideal for political campaigning. Recent elections have proven that a candidate's presence on SNS can help or hinder their campaign for office. In this chapter, we will first define political campaigning and discuss traditional methods for conducting a campaign. Second, we will identify effective campaign practices and techniques that politicians from around the world have used on SNS to gain support and votes.

### **A. TRADITIONAL METHODS AND DEFINITIONS OF POLITICAL CAMPAIGNING**

A common idiom, "Shaking hands and kissing babies", is often used to describe political campaigning. However, more than being pleasant, candidates have the burden of proving they are competent and honest enough to be trusted with representing the citizens who elect them. Traditionally politicians would travel in person to meet with potential voters and take every opportunity to address a crowd in person. When time constraints limited travels, politicians would often hire speakers or depend on political party representatives to campaign on their behalf. These personal interactions, as well as efforts to get a message out through newspapers, radio, and TV, were all designed to influence voters.

To gain the trust and ultimately the vote of a citizen, a politician must first convince the voter that he or she is qualified to serve in that position. The candidate does this by campaigning.

A political campaign is an organized effort which seeks to influence the decision making process within a specific group. In Democracies, political campaigns often refer to electoral campaigns, wherein representatives are chosen or referendums are decided. Political campaigns also include organized efforts to alter policy within any institution or organization.<sup>103</sup>

Another definition of political campaigning is

... [A]n effort to reach a certain political goal. In particular the term refers to involving (or trying to involve) mass participation with a particular issue, candidate or proposition, most often through winning an election.<sup>104</sup>

For the purposes of this thesis, political campaigning refers to a planned and resourced effort to influence and convince the voting citizens of a country to elect a certain candidate or vote in support, or opposition, of a certain policy. The ability to influence a population is critical in this process.

## **B. BEST PRACTICES FOR POLITICAL CAMPAIGNING ON SNS**

In recent years politicians, political parties, and campaign managers have experimented with the use of SNS. Some practices were successful while others failed. The following is a discussion of best practices for conducting political campaigns on SNS with examples taken from countries around the world.

### **1. Give and Take: Do Not Create an Online “Lawn Sign”**

When using SNS for political campaigning, do not recreate the candidate's or political party's website on the social service. People do not go to SNS to read the same information they can get from other sources. By understanding what the social community is interested in you can better develop messages to meet their information requirements.

---

<sup>103</sup> Alexander Tolstrup, “To Twit Or Not To Twit?” May 22, 2008. <http://www.politicsonline.com/content/main/soundoff/soundoff.asp?id=411> (accessed December 1, 2010).

<sup>104</sup> Word iQ, “Political Campaigning Definition,” Free Software Foundation, [http://www.wordiq.com/definition/Political\\_campaigning](http://www.wordiq.com/definition/Political_campaigning) (accessed November 8, 2010).

In 2004, most Australian politicians believed the Internet was important to their campaigns but they did not have a large presence on SNS. Political parties and not the candidate's personal staff ran most of the websites that existed.<sup>105</sup>

A total of 1,421 candidates were nominated for the 2004 Federal Election, 330 for the Senate and 1,091 for the House of Representatives. Of these, only a minority established a [personal]campaign website...The Australian Candidate Survey (ACS)... puts the total proportion of the candidates running sites at one third...[others] estimate just over one in ten.<sup>106</sup>

An early misstep by Australian politicians attempting to use SNS was creating websites that concentrated on being strictly online information sources and did not give followers the opportunity to voice their opinions.<sup>107</sup> One critique given to the 2004 Australian elections was that candidate's websites were online sources for information a citizen could get elsewhere. In fact, most of the descriptions for the candidate's sites refer to them as "online brochures".<sup>108</sup> The major Australian parties did not do much to interact with the citizens during the 2004 elections. The smaller parties, in contrast, participated more on the Internet to attract citizens to vote for their candidates.<sup>109</sup> The smaller parties were more active on the Internet out of necessity, since they did not have the resources of the larger parties. They likely recognized the increased speed, scope, and scale provided by the Internet and SNS.

Changes concerning the use of SNS occurred during the 2007 Australian Federal Election. According to the Creative Industries Faculty of the Queensland University of

---

<sup>105</sup> Rachel Gibson and Ian McAllister, "Australia: Potential Unfulfilled? The 2004 Election Online," in *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, eds. Stephen Ward and others (Landham, MD: Lexington Books, 2008), 42.

<sup>106</sup> *Ibid.*, 44.

<sup>107</sup> *Ibid.*, 37–38.

<sup>108</sup> *Ibid.*, 45.

<sup>109</sup> *Ibid.*

Technology in Brisbane, the Australian Labor Party (ALP) took control of the government largely through the use of SNS. The ALP used bloggers and citizen journalism to seat Kevin Rudd as the Prime Minister.<sup>110</sup>

Perhaps most telling, the winning party, the ALP, and its successful Prime Ministerial candidate, Kevin Rudd, were themselves seen to embrace social media, online forums and feedback, while the outgoing Liberal Party refused to engage with online campaigning beyond a very limited use of YouTube.<sup>111</sup>

In contrast to Australia, Canadian political parties used SNS much more effectively for their 2004 and 2006 Federal Elections.

Webmasters sat at the table alongside other key members of the campaign teams and planning for web campaigns usually began many months before the election was called.<sup>112</sup>

Canadian campaign seasons are extremely short by U.S. standards, lasting between 36 and 56 days, depending on the party that is in power. It is important for the Canadian politicians to be prepared and have their campaign efforts planned and synchronized. Once elections are called, the existing political party websites are transformed into campaign sites.<sup>113</sup> The Canadian politicians cannot afford to waste the resources, time, and money on redundant messaging techniques that may have little to no effect on the target audience. Since the U.S. Presidential elections were also taking place, Canadian campaign workers looked to the U.S. for ideas and effective campaign

---

110 Axel Bruns, Jason Wilson and Barry Saunders, "Citizen Journalism as Social Networking: Reporting the 2007 Australian Federal Election" (Brisbane, Australia: Queensland University of Technology,[2008]), <http://produsage.org/files/Citizen percent20Journalism percent20as percent20Social percent20Networking.pdf> (accessed November, 8 2010). 1

111 Ibid.

112 Tamara A. Small, David Taras and Dave Danchuk, "Canada: Party Websites and Online Campaigning during the 2004 and 2006 Federal Election" in *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, eds. Stephen Ward and others (Landham, MD: Lexington Books, 2008), 130.

113 Ibid., 115.

strategies. They found something of interest in Howard Dean's Presidential campaign.<sup>114</sup> The Liberal and Conservative parties of Canada found helpful techniques for effectively using SNS for political campaigning.

In 2004, nearly all the major Canadian parties created message boards to gather information about their constituents and feedback from them. This helped them develop a voter database and understand what issues were most important to their constituents. The Conservative and Liberal Parties used these message boards to take a census of the topics being discussed on the websites. They used this information to build the knowledge of what issues were important to the Canadian citizens. This allowed the candidates and speechwriters to construct their messages to address the needs and concerns of the citizens.<sup>115</sup> They also used this application to build databases of their parties' supporters and mobilize volunteers who had registered with the Parties' website.<sup>116</sup>

Bloc Quebecois, however, did not effectively use SNS during the 2004 Canadian elections.<sup>117</sup> Although their webmasters were deeply impressed by Howard Dean's e-campaign including its interactive nature and emphasis on blogging, they were fearful that a more interactive [uncensored] site would bring a fistful of problems."<sup>118</sup> The webmasters attempted to avert these problems by censoring posts on their message boards to prevent unwanted remarks from opponents or radical allies. Voters' comments were encouraged, but they could only comment on news threads, and only comment once. Those who posted a comment could not respond to other comments posted to that thread.<sup>119</sup> This effectively stifled debate and conversation, and soon drove away voters who did not like being censured.

---

<sup>114</sup> Tamara A. Small, David Taras and Dave Danchuk, "Canada: Party Websites and Online Campaigning during the 2004 and 2006 Federal Election" in *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, eds. Stephen Ward and others (Landham, MD: Lexington Books, 2008), 117.

<sup>115</sup> Small, Taras and Danchuk, "Canada: Party Websites and Online Campaigning during the 2004 and 2006 Federal Election" in *Making a Difference: A Comparative View of the Role of the Internet in Election*, 126

<sup>116</sup> Ibid., 127

<sup>117</sup> Ibid., 121; The Bloc Quebecois, is a party devoted to the Quebec sovereignty.

<sup>118</sup> Ibid., 122

<sup>119</sup> Ibid.

## 2. Get People Talking: Facilitate Interactive Communication

SNS users desire to share information and interact with others. Campaigns that do not harness the interactive communications capabilities of SNS will drive followers to other sites.

During the 2004 U.S. primary elections, Howard Dean's Presidential campaign was credited as the first successful Internet campaign. The campaign successfully harnessed grassroots support using a weblog as the primary mode for publishing dispatches from the candidate to his follower.<sup>120</sup> For the early part of the campaign, Dean was very successful, and it appeared he would gain the Democratic nomination. He was able to use SNS, in the form of blogs, to his advantage for communications as well as fund raising. Dean's online campaign helped him raise a total of \$14.8 million. Of note, most of the online donations were under \$100 each.<sup>121</sup> However, with benefits come risks. Howard Dean's campaign eventually suffered from his online presence when embarrassing YouTube videos of his speech after the Iowa primaries were manipulated. A video of his attempt to encourage continued support was taken out of context, portraying him as an unstable person. Playing of this video on cable news and video sharing sites contributed to Dean losing his party's nomination.<sup>122</sup>

Politically motivated bloggers were co-opted into the 2004 U.S. elections by both major parties. When bloggers decide to endorse a certain candidate, they relay the candidate's message to their own audience. In other instances, bloggers shape and effect conditions affecting the campaigns. In the last few months of the 2004 US Presidential election, "...there were several cases in which political blogs served to complement mainstream media by either breaking stories or by fact-checking news stories."<sup>123</sup> The best-remembered instance is the actions of bloggers in support of President George W.

---

120 Lada Adamic and Natalie Glance, The Political Blogosphere and the 2004 U.S. Election: Divided they Blog,[2005]), [www.blogpulse.com/papers/2005/AdamicGlanceBlogWWW.pdf](http://www.blogpulse.com/papers/2005/AdamicGlanceBlogWWW.pdf) (accessed 17 October 2010). 1-2; Unfortunately, one moment caught on camera, and played ad nauseam on the Internet caused him to lose support of Democratic Party members. He was eventually defeated by John Kerry.

121 Ibid, 2.

122 Ibid., 1-2

123 Ibid., 2

Bush. Bloggers, responding to a CBS News report about an alleged memorandum<sup>124</sup> casting a shadow on the President's service in the Air National Guard,<sup>125</sup> effectively squashed the controversy by fact checking the memo and informing their subscribers of its inaccuracies.

The Canadian political parties got another chance to use SNS for campaigning when an election was called on January 23, 2006.<sup>126</sup> The success of the Conservatives is attributed to their ability to capitalize on the actions of independent bloggers.<sup>127</sup> Bloggers aggressively worked on their own to support the Conservative party. These bloggers found evidence of corruption within the Liberal party and posted it on the Internet. Similar to the previously discussed U.S. campaign, a symbiotic relationship developed between the bloggers and the news media serving as a platform to amplify the bloggers findings.<sup>128</sup>

This trend was repeated in the 2008 U.S. Presidential campaign. Most notable was the race between Senators Barack Obama and Hillary Clinton for the Democratic nomination for the Presidency. Early in the primary race, the two candidates were extremely close to each other in the polls. A blogger, known by the pen name "Alegre", recounted her story about supporting Hillary Clinton in her blog.<sup>129</sup> When Alegre posted on her blog that she would be supporting Hillary Clinton in the upcoming presidential election, she was insulted and berated by Obama supporters. Insults and name calling, directed toward Alegre, erupted on message boards and blogs. The same community of bloggers that four years earlier promoted Howard Dean and John Kerry was now tearing

---

124 The memo was discovered to be a fake by bloggers; due to discrepancies in the format of the military memorandum and font used during the time the alleged memorandum was allegedly written.

125 Adamic and Glance, *The Political Blogosphere and the 2004 U.S. Election: Divided they Blog*, (accessed 17 October 2010), 2.

126 Small, Taras, and Danchuk, "Canada: Party Websites and Online Campaigning during the 2004 and 2006 Federal Election" in *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, 126.

127 Ibid., 130; ...[T]he term independent blogger may be misleading. It is not clear at this point whether parties are coordinating their efforts with certain bloggers or whether eruptions in the blogosphere work to the advantage of some parties and not others at different moments during a campaign

128 Ibid., 128.

129 Eric Boehlert, *Bloggers on the Bus: How the Internet Changed Politics and the Press* (New York, NY: Free Press, 2009). 117-126.

the Democratic National Committee apart. Each side (Obama supporters vs. Clinton supporters) did their best to destroy the character of the other.<sup>130</sup> The primary campaign for the Democratic Party's nomination was, in many ways, more brutal than the later election campaign for the Presidency.

### **3. Harness the Power of Volunteers: Cause People to Commit Themselves to Your Cause**

Encouraging and directing the online activities of supporters' leads to increased commitment to your cause, opportunities for recruiting additional followers, fundraising, spreading your message, and gaining valuable insight from the population.

According to the Pew Internet and American Life Project, supporters of the presidential candidate John McCain were more likely than supporters of Barack Obama to be Internet users (83 percent vs. 76 percent).<sup>131</sup> However, despite their smaller Internet presence, Obama supporters were more active as volunteers, showing that, online presence is not enough to gain an advantage. The difference was how each candidate's supporters used the Internet.

Obama supporters took part in a wider range of online political activities – from posting their own thoughts and comments about the election online to going online to volunteer for campaign activities or donate money... Obama voters outpaced McCain supporters in their use of the Internet to customize political content, to share campaign news with others and to facilitate their participation in campaign activities such as volunteering and donating money.<sup>132</sup>

Supporters of John McCain may have had more access to the Internet than Obama's supporters, but it is important to see what activities were performed when it came to the election campaign. The Table below shows these activities.

---

<sup>130</sup> Eric Boehlert, *Bloggers on the Bus: How the Internet Changed Politics and the Press* (New York, NY: Free Press, 2009), 122.

<sup>131</sup> Aaron Smith, "The Internet's Role in Campaign 2008" (Washington D.C.: Pew Internet & American Life Project, 2009), <http://www.pewInternet.org/Reports/2009/6-The-Internets-Role-in-Campaign-2008.aspx> (accessed 23 February 2010), 10.

<sup>132</sup> Ibid.

	Online Obama voters	Online McCain voters
In an online discussion, a listserv or other online group forum	11%	8%
On a blog (your own or someone else's)	11%	7%
On a social networking site	16%	8%
On a website of any kind, such as a political, campaign or news site that allows comments and discussion	13%	9%
<b>Any of these</b>	<b>26%</b>	<b>15%</b>

Table 1. Online Activities of Candidate Supporters.<sup>133</sup>

The Obama campaign was able to generate support using SNS. “The key to the Obama campaign’s embrace of the Internet was that his team urged supporters to actually *do* something, besides donate money.”<sup>134</sup> Obama’s campaign was not centered on the Internet, but instead used the Internet to support his campaign.<sup>135</sup> His campaign headquarters was able to coordinate and complement the actions of volunteers working in the streets with those working online. Obama’s campaign managers also developed an extremely effective tool for mobilizing volunteers and generating activity in SNS – the campaign site.

Chris Hughes, cofounder of Facebook, oversaw [www.MyBarackObama.com](http://www.MyBarackObama.com).<sup>136</sup> He took the lessons he learned from Facebook and applied them to the campaigns website. He saw the benefits of creating a network of Barack Obama supporters and giving them a medium to coordinate and support their activities. The site facilitated its members as they recruited their friends from other social networks to the “Barack Obama

<sup>133</sup> Smith, The Internet's Role in Campaign 2008 (Washington D.C.: Pew Internet & American Life Project, (accessed 23 February 2010), 80; The Percent of Internet users within each group who posted comments, queries or information about the campaign in the above places online.

<sup>134</sup> Boehlert, “Bloggers on the Bus: How the Internet Changed Politics and the Press,” 252.

<sup>135</sup> Ibid., 253.

<sup>136</sup> Ibid; Hughes is one of Facebook’s three cofounders who launched the landmark Web 2.0 site from their Harvard dormitory in 2004.

for President" network.<sup>137</sup> Members used this site to find out where the next rally in their area was going to be held. They could coordinate fund raising events, donate money, volunteer to call potential voters, and find talking points to help recruit more Obama supporters.<sup>138</sup> Anyone with access to the Internet could become their own private Barack Obama campaign office, wherever they were.

Linking all these volunteers together in an online network also had the advantage of reinforcing social behavior. Each person who registers on the MyBarackObama.com website can create a profile. Upon signing onto the website, he or she can volunteer to call voters, find a local group or event, fundraise, or blog. Not only are these activities available, they are highly encouraged. There is also an application to show the Obama supporter how involved they are compared to other members of the site. As the members sign in, the first thing they see is a score or rating of how involved they have been in the campaign, with a list of activities the member has performed, number of events hosted, rallies attended, people called, and money raised.<sup>139</sup> These tools allow campaign managers to reinforce the desired behavior of their volunteer as well as hold peers accountable for their actions. Through social pressure, the site promotes a community of people constantly striving to do more for the cause. The recorded activity of the volunteers not only encourages participation from the candidate's supporters, it provides the candidate and the supporters with a conduit of communication and some measure of their effectiveness.

#### **4. Get Involved and Participate**

The candidate must be active on as many sites as possible to get his or her message out to as many people as possible. A candidate cannot compete for votes on a site without an active presence. A candidate's messages can also serve as internal communications for supporters and volunteers. If the candidate is able to redeliver a

---

137 Boehlert, "Bloggers on the Bus: How the Internet Changed Politics and the Press," 256

138 Ibid., 246.

139 Organization for America, Organizing for America, "My Barack Obama" Democratic National Committee, <http://www.barackobama.com/index.php> (accessed August 27, 2010).

message in a fresh and new way, their supporters will stay motivated. Involvement could take the form of constant Twitter posts, new pictures posted to Flickr, the latest speech posted on YouTube, and an announcement of the next stop on the campaign trail posted to Facebook.

Flickr is one of the largest photo sharing sites on the Internet. During the 2008 Presidential campaign, Obama posted 50,000 more photos on Flickr than McCain, who did not even have a page.<sup>140</sup> On Twitter, Obama sent out nearly ten times as many Tweets as McCain and had 2,254 percent more followers.<sup>141</sup> Because Twitter is mainly small text messages, for people to be interested, messages must be posted frequently. If the Twitter feed is not updated continually, people lose interest. This may not have been the reason McCain lost the election, but it does show how his campaign did not effectively use SNS.

The president of Venezuela, Hugo Chavez, once called Twitter a “vehicle for terrorists.”<sup>142</sup> Yet, in April of 2010, he established his own Twitter account and started posting to the micro blogging site. Recognizing the power and effectiveness of SNS,<sup>143</sup> Chavez initially called for regulation of the Internet, but later announced he would begin blogging instead. His new strategy to dominate social networking sites includes using a group of young ‘communication guerrillas’ to battle opposition messages in the media and online.”<sup>144</sup> Venezuela has begun to accept the utility of SNS by creating a cadre of professional bloggers and online supporters. In the U.S., there still is a popular opinion that SNS are a waste of time and distraction to productivity. In fact, they may be quite productive in furthering our domestic and foreign policies.

---

140 Boehlert, "Bloggers on the Bus: How the Internet Changed Politics and the Press," 259.

141 Ibid.

142 John Hudson, "Chavez Joins Twitter: "Vehicle for Terrorists" No More?." April 29, 2010.<http://www.theatlanticwire.com/features/view/feature/Chavez-Joins-Twitter-Vehicle-for-Terrorists-No-More-1139> (accessed August 18, 2010).

143 The Associated Press, "Venezuela's Hugo Chavez Takes to Twitter." April 28, 2010.[http://www.usatoday.com/tech/world/2010-04-28-venezuela-chavez-twitter\\_N.htm](http://www.usatoday.com/tech/world/2010-04-28-venezuela-chavez-twitter_N.htm). (accessed August 18, 2010).

144 Ibid.

### C. MEASURING THE CAMPAIGNS SUCCESS ON SNS

Similar to the measures of success for marketing discussed in chapter three, measuring the effectiveness of a political campaign using SNS could be based on measurements like the number of fans of a Facebook page, followers of a Twitter account or members of an online discussion group. More specific and telling to measuring success for a political campaign are metrics like dollar amount of contributions attributed to online content, number of new contacts generated by online recruiting efforts, and the percent of the public with a positive perception of the message and political policies. Ultimately, the true measure of a political campaign's effectiveness is the number of votes cast on election day.

During the 2008 U.S. Presidential election, Obama received 3,302 more search hits over the course of the campaign, and gained 400,000 new friends on Facebook in the last two weeks of the campaign.<sup>145</sup> At MySpace, Obama had nearly four times as many friends as McCain and 269 percent more search requests for his name.<sup>146</sup> Additionally, Flickr reported five times as many searches for Obama as McCain.<sup>147</sup> These metrics are significant but do not necessarily translate into potential number of votes. To be a friend on Facebook does not equate to agreement with policy and a commitment to vote in the candidate's favor. But the metric does equate to the number of persons who potentially heard the message, which is a good start.

More telling metrics come in the form of feedback to the politician through message postings. The quantity of postings and percentage of positive postings provide valuable measures of effectiveness. This interaction also provides the opportunity to collaborate with supporters in order to adjust campaign messages and policies.

---

<sup>145</sup> Boehlert, "Bloggers on the Bus: How the Internet Changed Politics and the Press," 259.

<sup>146</sup> Ibid.

<sup>147</sup> Ibid.

## V. CONCLUSION

### **A. REVISITING THE OBJECTIVE**

In this research we considered whether the use of accepted Social Networking Services (Facebook, Twitter, YouTube, etc.) has applications for the development of the DoD Information Operations (MISO, MILDEC, PA, DSPD). This work researched the successful use of SNS by marketing and political campaign professionals. Based on the analysis of material in the previous chapters, the following section provides a summary of how the best practices for SNS marketing and political campaigning can be applied to IO messaging.

### **B. RECOMMENDATIONS**

DoD's efforts to operationalize SNS as an influence tool have been slow. Thus far, the military uses SNS mainly to provide domestic populations with public affairs information and command information, with little emphasis on influencing external and foreign audiences. However, many U.S. adversaries are using SNS to influence groups of people by publishing doctrine, expressing beliefs, and establishing interactive communications; they are not just providing news releases.

With the Internet's rapid global spread, traditional information operations media, like leaflets, handbills, and even radio and loudspeaker broadcasts, may be losing their ability to match the dissemination of information on-line. Facebook has been growing exponentially, with most of that growth happening outside the United States. As a result of this potential explosive future growth of the Internet and SNS, many countries around the world, to include Colombia, Iraq, and Venezuela, could have more people on-line and using SNS than not within a few years.

The effectiveness of SNS seems to be driven by the interactions of individuals, which rally the network or group around an action or an objective. SNS effectiveness is not necessarily about the individuals; it is about what they have in common; and it is about forming a significant relationship with them and actually doing something with

it.<sup>148</sup> Older media, such as traditional print and broadcast media, provide some degree of interactivity, but the new media (SNS) offer better speed, scope, and scale of interactivity.<sup>149</sup> SNS appeals to people's basic instincts and human nature as social animals to interact, form new relationships, and reinforce existing ones. The advantage that SNS provides is that instead of only a few, one can reach hundreds, thousands, or even millions of people in multiple locations almost instantaneously.

Although people can be informed through the Internet, they may not believe the messages due to trust issues with the content or source of information.<sup>150</sup> SNS has the potential to bridge the trust gap between viral Internet messaging and face-to-face interaction. It facilitates attending these social gatherings and developing trust, and it does so on a larger scale than other media.

### **1. Best Practices from Marketing**

With the introduction of Social Network Services (SNS), businesses have leaped at the opportunity to use them as marketing tools. Inherent in most of the definitions of marketing is the idea of exchanging ideas, services, or goods to satisfy a customer's needs while benefiting the provider's objectives. Researchers and business professionals have identified SNS as excellent media to conduct marketing, in the process developing the four best practices described in Chapter III. The following discusses how these practices can be applied to DoD IO operations.

**Determine the information needs of the audience:** Do research to gain an understanding of the information needs of the audience. Linger in the social network community to discover what topics are being discussed, what content is being viewed, and which of that content is liked or disliked.<sup>151</sup> By understanding what the social community is interested in, you can develop the appropriate messages and content to

---

<sup>148</sup> Janssen, "Why Are Social Networks Popular?" (accessed September 15, 2010).

<sup>149</sup> Pavlou and Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: a Research Agenda," (accessed October 4, 2010).

<sup>150</sup> Brogan and Smith, *Trust Agents: Using the Web to Build Influence and Improve Reputation and Earn Trust*.

<sup>151</sup> Plutsky, "6 Tips for Connecting with Social Media Content," (accessed October 22, 2010).

meet influence objectives and not drive away community members. Discovering the common interests of the audience and monitoring the interests as they evolve is critical to successful SNS influencing. IO targeting involves identifying the audience, its vulnerabilities, its degree of susceptibility, and identification of exploitable conditions. The intelligence provided by thorough analysis of the audience information needs will aid in the development of effective messages.

**Be transparent with intentions and identity:** Failure to be transparent and open about the intent for your online social presence will likely alienate audiences.<sup>152</sup> This transparency is important for developing trust using SNS. In order for the target audiences to believe the messages that they are receiving on SNS, they must be reasonably confident of the honesty and identity of the online spokespersons. People are more likely to share information and trust the shared information if the SNS network includes at least some level of transparency in regards to the identity of its users. However, this may be the riskiest issue for the use of SNS for influence operations. Good MISO, for example, combines the truth, operational security, cover, and concealment in order to be effective. To mitigate this risk, planners may need to use on-line surrogates or covertly support the work of loyal followers.

**You do not control the message:** In the DoD, the ability to control the message is seen as the norm. However, information is hard to control, and not usually possible when distributed through SNS. Recipients can distort and change the message in creative ways to suit their own interests. While protecting the integrity of the original message is important, a fine line should be walked between controlling the message and encouraging creativity of loyal followers.<sup>153</sup> Encouraging some creativity can lead to opportunities for increased contribution, co-creation, and feedback from the target audience. Although IO planners may be uncomfortable accepting the loss of control in messaging, doing so is necessary to ensure the free flow of information that makes SNS popular. IO professionals cannot take advantage of the benefits of SNS without mitigating the risks of losing control of the message. This is not a new risk, but is increased by SNS. IO

---

<sup>152</sup> Odden, “Best and Worst Practices Social Media Marketing,” (accessed October 28, 2010).

<sup>153</sup> Ibid.

planners can mitigate this risk by being redundant and persistent with the IO message on as many sites as possible. Messages that shift away from your objectives can also be dealt with through a counter-propaganda messaging campaign.

**Be interactive: listening and participation:** Successful SNS messaging involves participation and listening. Listening to SNS conversations provides a means of measuring effectiveness of messages and identifying potential target audiences for future content analysis and collaborative creation.<sup>154</sup> Not listening means that information is only flowing in one direction. SNS users desire to share and exchange information and connect with others. Failure to listen and participate in conversations will drive subscribers and followers to other sites. SNS are not like leaflets or handbills. They support two-way conversations, and it is crucial that IO plans include participation in these conversations. SNS should not be used solely as broadcast platforms. Successful use of SNS for IO will require development of dedicated teams focused on and authorized to participate in the online forums.

## **2. Best Practices from Political Campaigns**

While marketing's goal is to influence the population for purchases, a political campaign's goal is to influence citizens to vote. In recent years, the Internet and SNS have changed the dynamic of political campaigning. The speed, scope, and scale of SNS and how well politicians use them can affect how a person votes, making SNS ideal for political campaigning. Elections results have shown that a candidate's presence on SNS can help or hinder a campaign for office. In recent years politicians, political parties, and campaign managers have experimented with the use of SNS. Some practices were successful and others failed, leading to the four best practices described in Chapter IV. The following discusses how these practices can be applied to DoD IO operations.

**Give and take: do not create an online “lawn sign”:** Users do not go to SNS to read the same information they can get from other sources. By understanding what the social community is interested in, IO professionals can better develop messages to meet their information requirements. As applied to IO it is equally important to continually

---

<sup>154</sup> Odden, “Best and Worst Practices Social Media Marketing,” (accessed October 28, 2010).

gather information on the target audience's interest and information needs. IO, MISO, and PA planners need to treat messaging on SNS as a continual process in order to keep the information interesting and relevant, and maintain target audience participation.

**Get people talking: facilitate interactive communication:** SNS users desire to share information and interact with others. SNS messaging that does not harness the interactive communications capabilities of SNS will drive followers to other sites. When bloggers decide to endorse a certain topic, they relay that message to their own audience. IO professionals are not effective if they are the ones who must constantly keep the public conversation going. It is better if they can influence others to speak on their behalf. There are not enough IO professionals within DoD to maintain interaction at the potential scale of the SNS messaging. Dedicated SNS IO teams, surrogates, and loyal followers must be supported in order to facilitate interactive communications. Once a message is accepted, the IO professional must allow those who have accepted it to do most of the work in carrying it to others.

**Harness the power of volunteers:** Encouraging and directing the online activities of supporters can lead to increased commitment, opportunities for recruiting additional followers, spreading the message, and gaining valuable insight from the population. In MISO terms, this is referred to as a call to action.

**Get involved and participate:** The IO professional must be active on as many sites as possible in order to get the message out to as many people in the target audience as possible. It is inherent that an IO professional cannot directly influence anyone on SNS websites without an active presence. If the IO professional is able to redeliver a message in a fresh and new way, listeners will stay interested and motivated. Involvement could take the form of constant Twitter posts, new pictures posted to Flickr, the latest speech posted on YouTube, and an announcement of the next upcoming event posted to Facebook. IO planners need to focus on SNS media where the target audience is already involved. This involves continual monitoring, updating, and participation in SNS. IO planners cannot simply put information out and not interact with the target audience.

### 3. Measures of Effectiveness

SNS also has the added benefit of potentially providing Measures of Performance (MOP) and Measures of Effectiveness (MOE) through statistical data and feedback about the target audiences. For a message to be effective, both the sender and the receiver must mutually agree that the receiver has understood the message.<sup>155</sup> Feedback from the receiver to the sender plays an important role in influence because it is important that the target audience understands exactly what the sender intends, and that the sender adjusts the message when it is not.<sup>156</sup>

The MOE for a SNS influencing campaign could be based on measurements like the number of fans of a Facebook page, number of followers of a Twitter account, or the number of members in a discussion group. The interactive nature of SNS provides new opportunities for IO professionals to measure their messaging effectiveness. Providing the target audience, both individuals and groups, the opportunity to search for additional or more detailed information on a network site allows the IO professional to track and quantify the type and level of interest in a given message topic. IO on SNS, if done properly, provides for interactive participation of both the influencee and influencer. The information provided by the target audience gives the IO professional a means for message improvement.<sup>157</sup> However, the true measures of effectiveness for IO professionals conducting a SNS messaging campaign may not be found online. Changes in a population's behavior may best be measured by observing their actions on the ground. For example, a SNS messaging campaign to reduce ethnic violence may show a decrease in online postings if it is successful, but the ultimate measure will be a decrease in violent actions on the ground.

In summary, with the rapid global spread of the Internet, traditional information operations media, like leaflets, handbills, and even radio and loudspeaker broadcasts, may be losing their ability to match the dissemination of information on-line. An IO

---

155 Clark and Wilkes-Gibbs, "Referring as a Collaborative Process," 22.

156 Pavlou and Stewart, "Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda," 64.

157 Ibid.

officer who understands and utilizes these proven best practices will have a greater chance of success using SNS to meet influence objectives. This understanding of the best practices will lead to more effective IO influencing techniques that are on pace with current technologies and communication techniques.

### **C. SUGGESTIONS FOR FUTURE RESEARCH**

The following is a list of potential future research based on this paper:

- Develop IO doctrine based on the best practices identified in this thesis.
- Research potential organizational design of DoD SNS Influence Team: recommend team participants (MISO, IO, PA, Intel, and State Department), structure, authorizations, and objectives.

THIS PAGE INTENTIONALLY LEFT BLANK

## APPENDIX A. INTERNET GROWTH STATISTICS

### Worldwide:

WORLD INTERNET USAGE AND POPULATION STATISTICS					
World Regions	Population (2010 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Pen. %	Growth 2000-2010
Africa	1,013,779,050	4,514,400	110,931,700	10.9 %	2,357.3 %
Asia	3,834,792,852	114,304,000	825,094,396	21.5 %	621.8 %
Europe	813,319,511	105,096,093	475,069,448	58.4 %	352.0 %
Middle East	212,336,924	3,284,800	63,240,946	29.8 %	1,825.3 %
North America	344,124,450	108,096,800	266,224,500	77.4 %	146.3 %
Latin America	592,556,972	18,068,919	204,689,836	34.5 %	1,032.8 %
Oceania / Australia	34,700,201	7,620,480	21,263,990	61.3 %	179.0 %
WORLD TOTAL	6,845,609,960	360,985,492	1,966,514,816	28.7 %	444.8 %

Table 2. Worldwide Internet User Statistics<sup>158</sup>

---

<sup>158</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

**Colombia:**

YEAR	Population	Internet Users	% Penetration
2000	42,819,600	878,000	2.1 %
2005	41,242,948	4,739,000	11.5 %
2006	42,504,835	6,705,000	15.8 %
2007	44,379,598	10,097,000	22.8 %
2008	45,013,674	17,478,505	38.8 %
2009	44,977,758	21,529,415	48.7 %

Table 3. Internet User Statistics for Colombia<sup>159</sup>

(Ipresent-Ipast)/Ipast\*100 = total growth rate,  
Thus, (21,529,415-878,000)/878,000\*100 = 2352.1

Total growth rate/# of years = average annual growth rate, thus 2352.1/9 = **261.3 percent**

**Iraq:**

YEAR	Population	Internet Users	% Penetration
2000	26,628,187	12,500	0.1 %
2002	26,095,283	25,000	0.1 %
2008	28,221,181	275,000	1.0 %
2009	28,945,569	300,000	1.0 %
2010	29,671,605	325,000	1.1 %

Table 4. Internet User Statistics for Iraq<sup>160</sup>

(Ipresent-Ipast)/Ipast\*100 = Total growth rate

Thus, (325,000-12,500)/12,500\*100 = 2500

Total growth rate/# of years = average annual growth rate, thus 2500/10 = **250 percent**

---

<sup>159</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

<sup>160</sup> Ibid.

**Venezuela:**

YEAR	Population	Internet Users	% Penetration
2000	23,054,210	950,000	4.1 %
2005	24,847,273	3,040,000	12.2 %
2007	25,771,806	4,139,800	16.1 %
2008	26,414,815	6,349,184	24.0 %
2009	26,814,843	8,846,535	33.0 %

Table 5. Internet User Statistics for Venezuela<sup>161</sup>

(Ipresent-Ipast)/Ipast\*100 = Total growth rate

Thus, (8,846,535-950,000)/950,000\*100 = 831.2

Total growth rate/# of years = average annual growth rate, thus 831.2/9 = **92.4 percent**

---

<sup>161</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

THIS PAGE INTENTIONALLY LEFT BLANK

## APPENDIX B. FACEBOOK GROWTH RATE STATISTICS

Geographic World Regions	Population (2010 Est.)	Facebook Users	Facebook Penetration	Facebook Index(*)
Asia	3,834,792,852	93,584,580	2.4 %	11.3 %
Africa	1,013,779,050	17,607,440	1.7 %	15.9 %
Europe	813,319,511	162,104,640	19.9 %	34.1 %
Latin America	550,924,250	68,189,920	12.4 %	35.0 %
North America	344,124,450	149,054,040	43.3 %	56.0 %
Middle East	212,336,924	11,698,120	5.5 %	18.5 %
The Caribbean	41,632,722	3,925,060	9.4 %	39.0 %
Oceania / Australia	34,700,201	11,596,660	33.4 %	54.5 %
WORLD TOTAL	6,845,609,960	517,760,460	7.6 %	26.3 %

Table 6. Worldwide Facebook User Statistics<sup>162</sup>

---

<sup>162</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

**Colombia:**

YEAR	Internet Users	Facebook Users	% Penetration
2007	10,097,000	2,412,000	24%
2008	17,478,505	6,488,200	37%
2009	21,529,415	10,725,740	49%

Table 7. Facebook User Statistics for Colombia<sup>163</sup>

(Fpresent-Fpast)/Fpast\*100 = total growth rate

Thus,  $(10,725,740-2,412,000)/2,412,000*100 = 344.68$

Total growth rate/# of years = average annual growth rate, thus  $344.7/2 = \mathbf{172.3\ percent}$

**Iraq:**

YEAR	Internet Users	Facebook Users	% Penetration
May 2009*	275,000	400	<1%
2009	300,000	45,000	15%
2010	325,000	270,560	83%

Table 8. Facebook User Statistics for Iraq<sup>164</sup>

\*Before May of 2009, Facebook did not report numbers on its user base in Iraq.

(Fpresent-Fpast)/Fpast\*100 = Total growth rate

$(270,560-45,000)/45,000*100 = 501.2$

Total growth rate/# of years = average annual growth rate, thus  $501.2/1.5 = \mathbf{334.2\ percent}$

---

<sup>163</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

<sup>164</sup> Ibid.

**Venezuela:**

YEAR	Internet Users	Facebook Users	% Penetration
2008	6,349,184	1,462,500	23%
2009	8,846,535	4,223,740	48%
2010	9,306,916	6,857,980	74%

Table 9. Facebook User Statistics for Venezuela<sup>165</sup>

(Fpresent-Fpast)/Fpast\*100 = Total growth rate

(6,857,980-1,462,500)/1,462,500\*100 = 368.9

Total growth rate/# of years = average annual growth rate, thus 368.92/2 = **184.5 percent**

---

<sup>165</sup> Miniwatts Marketing Group, "Internet Usage Statistics," (accessed October 27, 2010); Miniwatts Marketing Group, "Facebook Users in the World," (accessed October 27, 2010).

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF REFERENCES

Adamic, Lada and Natalie Glance. "The Political Blogosphere and the 2004 U.S. Election: Divided they Blog", 2005,  
[www.blogpulse.com/papers/2005/AdamicGlanceBlogWWW.pdf](http://www.blogpulse.com/papers/2005/AdamicGlanceBlogWWW.pdf) (accessed October 17, 2010).

Al-Awlaki, Anwar. "Anwar al-Awlaki Lectures," Youtube.com  
<http://www.youtube.com/user/AnwarAwlakiLectures#p/p> (accessed September 16, 2010).

Allen, Nick. "Detroit: British Student in al-Qaeda Airline Bomb Attempt," Telegraph, December 26, 2009, sec World News.  
<http://www.telegraph.co.uk/news/worldnews/northamerica/usa/6886600/Detroit-British-student-in-al-Qaeda-airline-bomb-attempt.html>

American Marketing Association. "About AMA: Marketing Definition," (October, 2001):  
<http://www.marketingpower.com/AboutAMA/Pages/DefinitionofMarketing.aspx> (accessed October 28, 2010).

Anti-Defamation League. "Profile: Anwar al-Awlaki," Anti-Defamation League, (2009),  
[http://www.adl.org/main\\_Terrorism/anwar\\_al-awlaki.htm](http://www.adl.org/main_Terrorism/anwar_al-awlaki.htm) (accessed June 10, 2010).

Ardichvilli, Alexander, Vaughn Page, and Tim Wentling. "Motivation and Barriers to Virtual Knowledge-Sharing Practice," *J. of Knowledge Management*, Vol. 7, No. 1, 2003.

The Associated Press. "Venezuela's Hugo Chavez Takes to Twitter." April 28, 2010.  
[http://www.usatoday.com/tech/world/2010-04-28-venezuela-chavez-twitter\\_N.htm](http://www.usatoday.com/tech/world/2010-04-28-venezuela-chavez-twitter_N.htm). (accessed August 18, 2010).

Barbee, Jennifer. "What the Hell is a Microblog?." March 2, 2010.  
<http://dotcomconfessions.com/dotcom-diva-unplugged/what-the-hell-is-a-microblog> (accessed December 1, 2010).

Bernoff, Josh, and Charlene Li. "Harnessing the Power of the Oh-So-Social Web." *MIT Sloan Management Review*. Vol. 49, no. 3 (2008).

Boehlert, Eric. *Bloggers on the Bus: How the Internet Changed Politics and the Press*. New York, NY: Free Press, 2009.

Brogan, Chris, and Julian Smith. *Trust Agents: Using the Web to Build Influence and Improve Reputation and Earn Trust*. Wiley, 1st edition, August 24, 2009.

Bruns, Axel, Jason Wilson, and Barry Saunders. *Citizen Journalism as Social Networking: Reporting the 2007 Australian Federal Election*. Brisbane, Australia: Queensland University of Technology, 2008, <http://produsage.org/files/Citizen percent20Journalism percent20as percent20Social percent20Networking.pdf> (accessed November 8, 2010).

Burke, Moira, Cameron Marlow, and Thomas Lento. "Feed Me: Motivating Newcomer Contribution In Social Network Sites," Paper presented at Proceedings of the 27th International Conference on Human Factors In Computing Systems. (2009), <http://delivery.acm.org/10.1145/1520000/1518847/p945-burke.pdf?key1=1518847&key2=0487944821&coll=GUIDE&dl=GUIDE&CFID=104542066&CFTOKEN=70880639> (accessed 8 September 2010), 946.

Chilton, Dan. "Information Operations versus Civilian Marketing and Advertising: A Comparative Analysis to Improve IO Planning and Strategy." Master of Science in Information Systems and Operations, Monterey, CA: Naval Postgraduate School, 2008.

Clark, Herbert H., and Deanna Wilkes-Gibbs. "Referring as a Collaborative Process," *Cognition*, 22.

Clark, Herbert H., and Susan E. Brennan. "Grounding in Communication in L.B. Resnick, J.M. Levine, and S.D. Teasley (Eds.), *Perspectives on Socially Shared Cognition*, (Washington, D. C.: American Psychological Association), 127-149.

Content Marketing Institute. "Content Marketing," Wikipedia The Free Encyclopedia, (2010): [http://en.wikipedia.org/wiki/Content\\_marketing#cite\\_note-0](http://en.wikipedia.org/wiki/Content_marketing#cite_note-0) (accessed October 28, 2010).

Department of Defense. "DoD," Twitter, <http://twitter.com/DeptofDefense> (accessed August 30, 2010).

Department of Defense. "MilSuite-milWiki," Program Executive Office Command, Control and Communications-Tactical (PEO C3T). <https://www.kc.army.mil/wiki/MilSuite> (accessed September 9, 2010).

Deputy Secretary of Defense. "Directive-Type Memorandum (DTM) 09-026 - Responsible and Effective Use of Internet-Based Capabilities," (Washington D.C.: February 25, 2010), <http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-026.pdf> (accessed August 23, 2010).

Dodson, Joe A. JR., and Eitan Muller. "Models of the New Product Diffusion through Advertising and Word-of-Mouth", 1976.

Dukemorales. "Social network services." August 2, 2009. <http://forum.wareseeker.com/social-network-service-t1934.html> (accessed December 1, 2010).

Egerton, Bruce. "Imam's E-Mails to Fort Hood Suspect Hasan Tame Compared to Online Rhetoric," The Dallas Morning News, (November 29, 2009), sec Local.  
[http://www.dallasnews.com/sharedcontent/dws/news/texassouthwest/stories/DN-shootermam\\_29pro.ART.State.Edition2.4b91281.html](http://www.dallasnews.com/sharedcontent/dws/news/texassouthwest/stories/DN-shootermam_29pro.ART.State.Edition2.4b91281.html) (accessed June 10, 2010).

Ehmke, Cole, Joan Fulton, and Jayson Lusk. "Marketing's 4 P's: First Steps for New Entrepreneurs." *Purdue Extension*. EC-730:  
[www.extension.purdue.edu/extmedia/EC/EC-730.pdf](http://www.extension.purdue.edu/extmedia/EC/EC-730.pdf) (accessed October 28, 2010).

Ghosh, Bobby. "How Dangerous is the Cleric Anwar al-Awlaki?," Time (January 13 2010), <http://www.time.com/time/world/article/0,8599,1953426-3,00.html> (accessed March 3, 2010).

Gibson, Rachel, and Ian McAllister. "Australia: Potential Unfulfilled? The 2004 Election Online." In *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, edited by Stephen Ward, Diana Owen, Richard Davis and David Taras, 35-55. Lanham, MD: Lexington Books, 2008.

Hess, Pamela, and Anne Gearan. "Levin: More E-mails From Ft. Hood Suspect Possible: Senator Says Investigators May Reveal More Troubling E-mails From Alleged Ft. Hood Shooter," ABC News Internet Ventures. 2009,  
<http://abcnews.go.com/Politics/wireStory?id=9143884> (accessed March 11, 2010).

Hudson, John. "Chavez Joins Twitter: "Vehicle for Terrorists" No More?." April 29, 2010.<http://www.theatlanticwire.com/features/view/feature/Chavez-Joins-Twitter-Vehicle-for-Terrorists-No-More-1139> (accessed August 18, 2010).

Iacobucci, Dawn. *Kellogg on Marketing*. New York, NY: John Wiley and Sons, Inc., 2001

International Security Assistance Force. "ISAF," Twitter, <http://twitter.com/ISAFmedia> (accessed August 30, 2010).

Janssen, Eric. "Why Are Social Networks Popular?," Biznik. (2010),  
<http://biznik.com/articles/why-are-social-networks-popular> (accessed September 15, 2010).

McCants, Will. "Invading Facebook: Theory and Practice." December 17, 2008.<http://www.jihadica.com/invading-facebook-theory-and-practice/> (accessed March 3, 2010).

Miniwatts Marketing Group. "Facebook Users in the World; Facebook Usage and Facebook Penetration Statistics for the Main World Geographic Regions." 2010.<http://www.Internetworkstats.com/stats25.htm> (accessed October 27, 2010).

Miniwatts Marketing Group. "Internet Usage Statistics; The Big Picture." 2010.<http://www.Internetworkstats.com/stats.htm> (accessed October 27, 2010);

Mitchell, Scott. "Wiki," Wikipedia, The Free Encyclopedia, (2010), <http://en.wikipedia.org/wiki/Wiki>, (accessed August 25, 2010).

Morris, Loveday. "The Anatomy of a Suicide Bomber," The National (2010), <http://www.thenational.ae/apps/pbcs.dll/article?AID=/20100102/WEEKENDER/701019622/1306> (accessed March 11, 2010).

Mullen, Mike. "Admiral Mike Mullen, Chairman of the Joint Chiefs of Staff," Facebook.com, <http://www.facebook.com/admiralmikemullen#!/admiralmikemullen?v=wall> (accessed August 28, 2010).

New Way Media. "Social Media," CoDak Corporation, (2008), <http://newwaymedia.com/web/social-media/> (accessed September 15, 2010).

NewsCore. "Times Square Suspect Contacted Radical Cleric." May 1, 2010.[http://www.myfoxdetroit.com/dpps/news/times-square-suspect-contacted-radical-cleric-dpgonc-km-20100506\\_7411371](http://www.myfoxdetroit.com/dpps/news/times-square-suspect-contacted-radical-cleric-dpgonc-km-20100506_7411371) (accessed June 10, 2010).

Nielsen Online. "March 2009 Global Faces and Networked Places: A Nielsen Report on Social Networking's New Global Footprint," The Nielson Company. (2009), [http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen\\_globalfaces\\_mar09.pdf](http://blog.nielsen.com/nielsenwire/wp-content/uploads/2009/03/nielsen_globalfaces_mar09.pdf) (accessed September 14, 2010).

Nine Eleven Finding Answers Foundation. "Anwar al Awlaki: Pro al-Qaida Ideologue With Influence In the West," NEFA Foundation, (2009), [http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefabackgrounder\\_al\\_awlaki.pdf](http://www.nefafoundation.org/miscellaneous/FeaturedDocs/nefabackgrounder_al_awlaki.pdf) (accessed 6/10/2010);

Odden, Lee. February 12, 2009. "Best and Worst Practices Social Media Marketing." Online Marketing Blog.(February 12, 2009): <http://www.toprankblog.com/2009/02/best-worst-practices-social-media-marketing/> (accessed October 28, 2010).

Organizing for America. "My Barack Obama " Democratic National Committee, <http://www.barackobama.com/index.php> (accessed August 27, 2010).

Pavlou, Paul A., and David W. Stewart. "Measuring the Effects and Effectiveness of Interactive Advertising: A Research Agenda." *Journal of Interactive Advertising*, vol. 1, no. 1 (2000):

Plutsky, Gordon. "6 Tips for Connecting With Social Media Content." (2010): <http://www.imediaconnection.com/content/25860.asp> (accessed October 22, 2010).

Polishuk, Paul. "Free Satellite TV's a Hit in a Free Iraq." *Iraq Telecom Newsletter*, February, 2004.

Powell, Guy R. *Return on Marketing Investment: Demand More from Your Marketing and Sales Investments* (2003) RPI Press.  
[http://en.wikipedia.org/wiki/Return\\_on\\_marketing\\_investment](http://en.wikipedia.org/wiki/Return_on_marketing_investment) (accessed November 01, 2010).

Silk, Alvin J. *What is Marketing?* Boston, MA: Harvard Business School Press, 2006.

The Simon Wiesenthal Center. "iReport: Online Terror Hate The First Decade". Snider Social Action Institute,  
<http://www.kintera.org/site/apps/s/link.asp?c=fwLYKnN8LzH&b=4145951> (accessed June 10, 2010).

Small, Tamara A., David Taras, and Dave Danchuk. "Canada: Party Websites and Online Campaigning during the 2004 and 2006 Federal Election." In *Making a Difference: A Comparative View of the Role of the Internet in Election Politics*, 113-131. Lanham, MD: Lexington Books, 2008.

Smith, Aaron. "The Internet's Role in Campaign 2008" (Washington D.C.: Pew Internet & American Life Project, 2009), <http://www.pewinternet.org/Reports/2009/6-The-Internets-Role-in-Campaign-2008.aspx> (accessed 23 February 2010).

Smith, Justin. "Inside Facebook Tracking Facebook and the Facebook Platform for Developers and Marketers." July 2, 2009.<http://www.insidefacebook.com/2009/07/02/facebook-now-growing-by-over-700000-users-a-day-updated-engagement-stats/> (accessed October 27, 2010).

Stavridis, James. "James Stavridis," Facebook.com,  
<http://www.facebook.com/james.stavridis> (accessed 8/28/2010).

Temple-Raston, Diana. "Officials: Cleric Had Role in Christmas Bomb Attempt," (2010), <http://www.npr.org/templates/story/story.php?storyId=123894237> (accessed March 18, 2010).

Thornton, Steve. "Twitter versus Facebook: Should you Choose One?." 2009.<http://www.twitip.com/twitter-versus-facebook/> (accessed October 27, 2010).

Tolstrup, Alexander. "To Twit Or Not To Twit?." May 22, 2008.<http://www.politicsonline.com/content/main/soundoff/soundoff.asp?id=411> (accessed December 1, 2010).

The U.S. Army. "U.S. Army," Twitter, <http://twitter.com/USArmy> (accessed August 30, 2010).

United States of America vs. Umar Farouk Abdullamutallab, (United States District Court Eastern District of Michigan Southern Division 2010), [http://www.cbsnews.com/htdocs/pdf/Abdulmutallab\\_Indictment.pdf](http://www.cbsnews.com/htdocs/pdf/Abdulmutallab_Indictment.pdf) (accessed June 10, 2010).

Weber, Larry. *Marketing to the Social Web: How Digital Customer Communities Build Your Business*. 2 ed., New York, NY: John Wiley & Sons, 2007.

Williams, Christine B., and Girish J. Gulati. *Social Networks in Political Campaigns: Facebook and the 2006 Midterm Elections*. Chicago: Social Networks In Political Campaigns: Facebook and the 2006 Midterm Elections, 2006.

Wilson, David. "A Failed Facebook Marketing Campaign", Social Media Optimization: Merging of Traditional Media. SEM and Social Marketing. (2007): <http://social-media-optimization.com/2007/10/a-failed-facebook-marketing-campaign/> (accessed October 18, 2010).

Word iQ, "Political Campaigning -- Definition," Free Software Foundation, [http://www.wordiq.com/definition/Political\\_campaigning](http://www.wordiq.com/definition/Political_campaigning) (accessed November 8, 2010).

Wright, Donald K., and Michelle D. Hinson. "Examining How Public Relations Practitioners Actually are Using Social Media," Public Relations Journal 3 (3), Summer 2009.

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California